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PERSONNEL

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Index to Volume 18

May 1939—April 1940

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Six Humm-Wadsworth Temperament Scale Profiles

The temperamental tendencies which Humm and Wadsworth use are N, the *Normal*, or temperamental 'brake', which, if strong enough, can counterbalance otherwise unfavorable indications, but which, if too strong, may inhibit even behavior which is usually acceptable; H, the *Hysteroid*, which is an antisocial tendency, and is supposedly found in those who commit crimes for personal gain; M, the *Manic*, or excitable-sociable trend, and its opposite, D, the *Depressive*, which is associated with suicidal tendencies, and is oftenest found in people who fluctuate from elation to depression; A, the *Autistic*, or inclination to withdraw within oneself; P, the *Paranoid*, associated with a persecution complex, or a tendency toward fixed ideas, and E, the *Epileptoid*, which takes its name from epilepsy, and which supposedly shows itself in close attention to fine detail and a distorted view of the relation of oneself or one's job to other people. (See page opposite.)

Figure 11, Mrs. J.

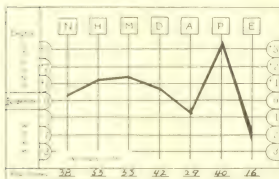


Figure 12, Mrs. J.

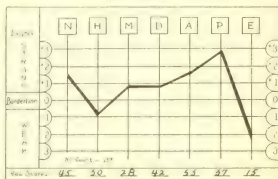


Figure 13, Mrs. J.

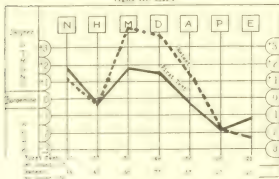


Figure 14, Mr. B.

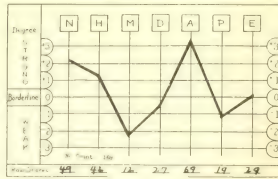


Figure 15, Mrs. M.

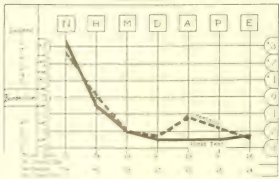
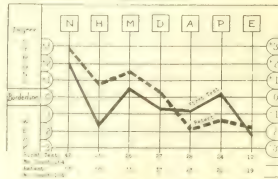


Figure 16, Mr. B. & Mrs. J.



The Results Obtained from the Humm-Wadsworth Temperament Scale come Uncannily Near the Truth. It Certainly Weeds Out Possible Trouble-makers from Otherwise Acceptable Employees. It is a Quick and Sure Method and You Don't Have to Wait and See What Happens.

Theory *and* Practice of Temperament Testing

BY MARY ELIZABETH HEMSATH

Philadelphia, Pa.

TEMPERAMENT and personality tests have been very much discussed in the last few years. Most of the research, however, has been confined to the laboratory, where experimenters have analyzed and dissected tests, producing statistical evidence that these measures are or are not what they purport to be. We have approached the subject from a different angle, since all our work must be done with people who are doing clerical work of various kinds, and our data consists of test scores, obtained either at the time of employment or at a time when the person was considered for promotion, and reports on the individual's progress.

Dandy Bunch of Youngsters

PRODUCTION records are not obtainable for most types of clerical work, so that our tests are proved valid not by correlations between scores and work records, but by the satisfaction of the supervisors who say to us, "That's a dandy bunch of youngsters you've been sending us lately!"

The Humm-Wadsworth Temperament Scale, which we use, was devised after an unfortunate occurrence, when a crazed employee in a large company murdered his supervisor. There seemed to be an immediate need for an indicator of psychotic tendencies, and Humm and Wadsworth based their Scale on the Rosanoff theory of temperament. This assumes that there are several basic types of temperament make-up, each of which, in its exaggerated form, is a kind of psychosis.

The temperament factors which Humm and Wadsworth used were the *Normal*,

or temperamental 'break', which is strong enough, can counterbalance otherwise unfavorable indications, but which, if too strong, may inhibit even behavior which is usually acceptable; the *Hysteroid*, which is an antisocial tendency, and is supposedly found in those who commit crimes for personal gain; the *Manic*, or excitable-social trend, and its opposite, the *Depressive*, which is associated with suicidal tendencies, and is oftenest found in people who fluctuate from elation to depression; *Autistic*, or the inclination to withdraw within oneself; *Paranoid*, associated with a persecution complex, or a tendency toward fixed ideas, and the *Epileptoid*, which takes its name from epilepsy, and which supposedly shows itself in close attention to one detail and a distorted view of the relation of oneself or one's job to other people.

Happiness and Success in Job

WE BEGIN with the supposition that all the individuals with whom we deal are 'normal' to the extent that they are capable of self-support and are able to meet social situations. We find, however, that not everyone is suited to every type of job for which he has the intelligence required, the necessary training and experience, and the various aptitudes which seem to be desirable. Something else is needed to make the person happy and successful in his occupation.

The Humm-Wadsworth Temperament Scale has told us much that we wanted to know. There are 318 questions, each to be answered, Yes or No. The scores, ranging from -3, through 0, to +3 for each factor, are arranged in the form of a profile. (For profiles see page 2.) Inspection shows us whether, for instance, an individual is predominantly Manic, as shown in Figure III, or Paranoid, as shown in Figure I, how much 'balance' there is in the form of the Normal component, and whether the strongest traits are isolated or are combined with any or all of the other factors in significant amounts.

Self-Confident Person May Be Suspicious

EXPERIENCE has taught us to make a sharp distinction between the components of the scale and the psychoses for which they are named. Unfortunately, the trait names themselves are apt to be misleading, and it is very easy to fall into error in interpreting the results.

Even with these reservations, we cannot accept the profile as it stands. We have found that a moderately high Paranoid score, for instance, though it is usually a measure of self-confidence, may indicate conceit, or suspiciousness, or a combination of these and other tendencies in many varying degrees. Since there is a correlation between Paranoid and Hysteroid scores, and since many of the answers to the questions are weighted for both factors, it is even possible that the Paranoid score is the result of a kind of 'attraction' from one component to another. Only a very careful study of the blank, with all the answers which are given, scored or unscored, can solve the problem of what the profile signifies.

We assume that there is no such thing as a 'good' or 'poor' profile. We say, however, that there are some types of people who are not happy or successful in certain positions, and we attempt to select people with the temperament indications which agree most closely with what we know of the requirements of the job. Our experience with collectors is a striking example.

These men are in our small loan department, checking up on people who have not been making their repayments promptly, and, in some cases, repossessing the automobiles or equipment which were being bought on a time-payment plan. The successful collectors all show a significant amount of the Paranoid quality—that is, they are all self-confident, sometimes stubborn in refusing to see the other person's point of view, and usually well aware of the fact that the other fellow is only too ready to take advantage of them.

Clever Paranoid Causes Trouble

THE conspicuous failures on the collecting job have all lacked the Paranoid trait, and for this reason we conclude that it is common to successful collection men, and look for it in selecting men for our small loan department.

In other situations we find that Paranoid individuals make unsatisfactory employees. Our experience with Mrs. T. is a warning to us, and we do not want to repeat that mistake.

Mrs. T. was a divorcee in her middle thirties, who had held a number of very responsible positions. She left one because she did not approve of the company ethics; another to advance herself, and a third because the company was reorganized, and, as secretary to the former president, she could not adapt herself to the new situation.

She applied to us for a temporary position, and because of her exceptional ability, we decided to employ her in spite of unfavorable temperament indications. Her Humm-Wadsworth profile, seen in Figure I, showed an extremely high Paranoid indication, with little Normal to balance it, and slightly more than an average amount of the Hysteroid and Manic components. The Paranoid trait was the dominant factor.

Too Little Normal to Balance Trend

FROM the first there was no question of Mrs. T.'s ability. She could produce in the course of a morning what most girls required a day to do, and, in addition to her stenographic and secretarial duties, she handled some statistical work, and amazed her superiors by setting up detailed financial reports in less time than trained men required. In spite of this, however, it was quickly discovered that Mrs. T. was not an ideal employee.

Her supervisors reported that she considered the work beneath her, and she herself appeared in the personnel department to demand that she be transferred to a more important position. Her superiors reported that her work was always satisfactory, but that she talked too much, trying to 'run the department,' and stressing

the importance of the positions she had held before and the high salaries which she had received.

She began to take long lunch hours, apparently feeling that, so long as her work was done efficiently, there was no need to conform to regulations. She also began to take time off, first to interview prospective employers, which we considered legitimate under the circumstances, and then for social engagements, and, particularly, a trip to New York which kept her away for five days. She thought it rather unjust that we considered this 'leave without pay.' She left the bank soon afterward, at the conclusion of the period for which she had been employed, and we agreed with her supervisors that we were well rid of a trouble-maker.

Mr. H. Upset by Young Supervisor

MR. H. is another problem case because of an abnormal Paranoid tendency. His profile is shown in Figure II. Unlike Mrs. T., Mr. H. has strong Normal and Autistic indications, and has a reputation for being quiet, reserved in manner, and methodical about his work. He was tested with several other men from his department whom we were considering for transfer to a new type of account analysis.

Mr. H. showed unusual ability in his tests, and had already demonstrated his power to analyze problems, so that everything augured well for the future. Even the fact that he seemed to prefer working alone seemed an advantage for a small department, and the possibility of eventual promotion to an official position should have aroused his interest in the new job. In spite of all the apparent advantages, Mr. H. immediately disliked his position.

This was partly understandable, since the man who was nominal head of the new section was about 25 years old. Mr. H. himself was at least ten years older. The young supervisor was well aware of the fact that he was considered one of the bright young men of the Bank. His supervisory methods may therefore have been not altogether commendable. While other people in the department adjusted themselves to these circumstances, Mr. H. resented the situation, and his attitude made matters worse.

Behavior Limits Promotability

HE WORKED very slowly, excusing himself on the grounds that he had a reputation for doing deliberate, accurate work. For the first few weeks he was supposed to spend part of each day in his old department, tying up the loose ends which were left by his promotion, but he made this the justification for long absences from his new desk, and there was every indication that this would continue indefinitely. Finally a check-up on production showed that he was doing less work than anyone else in the department, but, when he was told that a record was being kept, he produced fifty per cent more in one month than he had in the entire six months preceding.

The final decision was that Mr. H. should be moved back to his old department.

He was extremely intelligent and capable, but his attitude limited his possibilities for promotion.

It is not only Paranoid people who cause difficulty when they are misplaced. The most obvious misfits are the people who have a strong Hysteroid tendency, and who try to hold positions where they have access to money.

Experience has shown that the persons who 'don't see' counterfeit bills in the Money Department, or who discover that deposit slips can be held out of a teller's settlement are those whose Hysteroid component on the Humm-Wadsworth Scale is high, particularly in relation to the Normal factor. On the other hand, if the Hysteroid tendency is completely lacking, the person is apt to be 'soft' in his dealings with other people. Without an equally strong Normal showing, however, Hysteroid strength is like dynamite in a financial institution.

Manics Are Best Employees

STRONG Manic indications occur more frequently than any other. We have found this to be true in our own experience, and Humm reports that the mean score on the Manic component is $+1$ on a scale ranging from -3 to $+3$. Care must be taken not to interpret a score of 0 on the scale as being an 'average' or 'median' showing.

We have found that people with Manic indications are probably the most satisfactory employees, since they are sociable, responsive, and usually cheerful. In many instances we have found that they are capable of handling a large volume of work efficiently, where other individuals seem unable to rise to the emergency. On the other hand, strongly Manic persons, particularly those who do not have sufficient Normal counterbalance, are often criticized for their distractability, or because they are carried away by enthusiasm, and at times are unable to adapt themselves to monotonous tasks which do not interest them.

Miss J. a Cheerful and Willing Worker

MISS J. is a case in point. We have two Humm-Wadsworth profiles for her, the results from tests given about a year and a half apart. Miss J. asked to be allowed to repeat the test, since she felt that she had been trying to 'put her best foot forward' the first time. In the second instance, she was probably too willing to admit her faults, and the resulting profile is probably no more valid than the original one. However, the same characteristics appear in both instances. Both profiles can be seen in Figure III.

Our conclusion is that Miss J. is extremely Manic, only slightly less Depressive, and lacks an adequate 'brake' in the Normal. Everyone who knows the girl agrees that she has all the characteristics ascribed to Manic individuals, ranging from a love of finery to the capacity for unusually ambitious undertakings. For several years her job required her to 'fill in' wherever extra help was needed, and she proved

to be unusually adaptable to the changing situation. Not only was she a good clerk and stenographer, but she was also very well liked wherever she went. Sickness at home, a precarious financial situation, and the painful breaking off of her engagement did not affect her disposition, and she remained a cheerful and willing worker.

Leaves but Comes Back

WHEN she was offered a position outside the Bank at a better salary, with the added inducement of recognition as a minor executive, she left our employ. The company to which she went was forced to cut down its staff after about six months, and Miss J. reapplied for work with us.

We employed her unhesitatingly, on the strength of her past record, but, since her former position was satisfactorily filled, Miss J. was placed in a small department where she did mostly Ediphone work and routine typing. It was thought that, since the department was still in the process of organization, it offered a splendid opportunity for a person of real ability.

Unfortunately, Miss J. found the work dull and monotonous. The other girls were not particularly friendly, partly because she was a little bit older than they, but mostly because they discovered that she received a higher salary, and they resented that fact. There began to be reports that Miss J. was a mediocre typist, and that she wasted entirely too much time. Miss J., on the other hand, thought that her new superiors were hypercritical, and, though she laughed about the situation, it was obvious that it troubled her.

Needs Stimulus of Job Variety

CONDITIONS at home became worse, for, following the death of her mother, Miss J. had the responsibility of managing the household, with the help of a succession of incompetent and irresponsible housekeepers. While some of the worry disappeared in the course of time, it is evident that Miss J. is not happy in her routine job, and she is rapidly losing her old sparkle in resignation. She is a person who seems to need the stimulus of variety in her work and contact with many different kinds of people, and she is unhappy in a situation which provides opportunity for neither.

If this is what happens to a sociable person in a monotonous job, what is the reaction of an unsocial individual in a business situation? Mr. W. is an extremely Autistic individual. He is shy and retiring, though he has been in the same department for a number of years, is well-liked by the men with whom he works, and is a very competent clerk. His Humm-Wadsworth profile, Figure IV, shows an extremely strong Autistic tendency, with almost equal strength in the Normal component, but no other significant indications.

The Manic component is most conspicuously lacking. This entirely agrees with what has been learned about him in his relations with his fellow-workers:

he knows all the men in the department, and gets along amicably with each of them, but beyond that point he will not go, and consequently he is still a comparative stranger even to the men who work beside him. His supervisor reports that he is a very accurate clerk, but since the next promotion for him would mean contact with the public from behind a teller's window, his aloofness is a serious handicap. Were it not for this, he would be one of the most promising men in his department.

None with Suicidal Tendencies

WE HAVE concluded, from what we know of Autistic people, that they are very well suited for laboratory or research projects, since they would least mind working alone for long hours, and would not be dependent upon the stimulus of praise from their supervisors. So far we have identified no positions in the bank which require that sort of temperament pattern, but the few such individuals we have found have been happiest in jobs which do not call for versatility or close contact with other people.

According to the manuals for the Humm-Wadsworth Scale, Depressive persons often have suicidal tendencies. We have not found anyone up to this time who was very strongly Depressive without being at the same time strongly Manic, so that our only conclusion has been that the Depressive tendency shows itself in moodiness which may or may not alternate with typical Manic elation.

Another factor of which we know almost nothing is the Epileptoid. We know that no diagnosis of epilepsy can be made on the strength of the temperament profile, but we have found so few instances where the Epileptoid indications have been significant that we have come to no conclusions about it.

An Office Boy with Distorted Ideas

WE HAVE one case, however, of an Epileptoid showing which seems to be significant. This person has a peculiarly distorted idea of his future in the Bank, believing that it will not be through knowledge or skill, but because of his personality that he will receive advancement.

He is taking courses at one of the universities, but, so nearly as we can judge, he does not enjoy them, does not do well in them, and does not know how they will be of any help to him later. He feels that he is under some sort of moral obligation to go to school, just as he feels that he must ride horseback several times a week, and 'date' members of the 'school set' when they are home for vacations. These things, combined with his frank statement that he is completely satisfied as an office boy, except for the cash consideration involved, all tie in with what little we know of Epileptoid characteristics.

We are not justified, however, in drawing any conclusions, since the person in this case is still under twenty-one and the results of the temperament test cannot be considered valid. We expect to retest this boy at regular intervals, to determine whether or not the Epileptoid indication persists, and we expect to make a periodic

check-up on his progress through his supervisors, so that we will know how his attitude changes as he grows older.

As a rule, a strong Normal component is very desirable, since it serves as a 'brake' for other tendencies. In its extreme form, however, it seems to be just as undesirable as any other abnormally strong trait, for the person is very apt to be repressed or to be so controlled in his reactions that he does not fit in with ordinary people.

Miss M. was one of these people. Her profile on the Humm-Wadsworth Temperament Scale, before and after revision, is shown in Figure V.

We found that Miss M. was a very able and intelligent girl, but that she did not bother to do anything which did not interest her. She was never 'swamped' with work—no matter how much she was given to do, it was done efficiently—but she never looked for work, and if a task did not interest her, she stopped trying. Men in other departments noticed her ungracious manner of answering the telephone, and found her a very unsatisfactory source of information.

Scale Not Good for College Classes

H^{ER} immediate supervisor reports that she lacks self-confidence and seems always to 'hold herself in' so that she does not react as well-adjusted people do. Whatever Hysteroid tendency she has seems to result from a desire to keep out of trouble: she is the sort of person who, as a child, would pretend to be sick and return home rather than be late for school. She is overly conscientious now, and gives the impression that if she would only 'let go' and laugh out loud once in a while she could improve her relations not only with other people, but also with herself.

Our purpose in giving tests to applicants is to discover their weaknesses and strong points, so that we may place them to the best advantage, and avoid misfits in the future. This is our attitude toward measures of temperament as well as intelligence and various kinds of clerical ability. So far our results seem to justify our efforts. Because we have had considerable experience with persons who have unusual temperament indications, we have concluded that individuals with abnormal trait patterns are not the best employees.

Humm and Wadsworth validated their temperament scale originally on a group of people over twenty-five years of age. Theoretically, temperament does not tend to stabilize until about age 30, although there have been a number of attempts to set up norms for college students. Many of the recent publications on the Humm-Wadsworth Scale are of little value to us because college classes were used in the experiments.

Research in School-Job Adjustment

O^{UR} own policy has been to administer the temperament scale to all the boys and girls we employ, though we disregard the results in making our decisions,

and we have not attempted to set up any norms on the basis of our present data. We are planning, however, to test each of these youngsters at yearly intervals at least until he reaches the age of 25, and to compare each of these profiles with the profiles from the years previous. In this way we hope eventually to be able to predict the changes which normally take place in a boy as he adjusts himself from a school situation to a position in a business organization.

Our findings are of course not conclusive, but we have found wide deviations from one year to another, and we have come to expect no consistency in the profiles of our younger employees. Usually we can see exactly the same patterns in the behavior of the boy himself as are reflected in the temperament profile, and the two alter together. We have a typical example in the case of Bill K.

His supervisor became interested in our testing program and asked us to submit a brief written report on each of his men. We said of Mr. K., among other things, that he apparently had a tendency toward conceit, and his supervisor immediately wanted to know when the questionnaire had been filled out. On finding that the test results dated back a year or more, he smiled and said that our analysis would have been quite correct at that time, but that it was no longer an accurate description of the boy's attitude.

The Boy with the Changing Temperament

HE HAD been careless and cocky at the time, when the test had been administered, but in the meantime he had gone on a camping trip with other boys of his own age, and had come back with the conceit mysteriously gone. The supervisor suggested that retesting the boy might be interesting, and we agreed to give the Humm-Wadsworth Scale again. The retest results can be compared with the original profile in Figure VI.

The Paranoid indication is now negligible, and is now completely outweighed by the Manic, Depressive, and Hysteroid components. Obviously there is a relationship between the test results and the overt behavior of the individual, and, as the person matures, the test indications can be expected to change.

Variations such as we make in our use of the Humm-Wadsworth Temperament Scale are not deviations from the directions for administering and scoring the tests, but are changes in interpretation, based on what we have discovered to be true of the 700-odd cases in our files.

We have found that profiles alone mean little, although we feel justified in passing over a strongly Hysteroid person when we are looking for a money counter, or an Autistic individual when we need a man for collection or sales work. Beyond these general conclusions, however, we do not go without consulting the Humm-Wadsworth blanks further.

Must Reconstruct Mental State

IT IS necessary to examine the blank minutely and to try to reconstruct the person's mental state at the time when the questions were read and answered, before one

can say with any confidence that his interpretation approximates the individual's temperament make-up. Strong tendencies, in terms of the profile, are probably dominant factors, while weak ones are relatively unimportant. Each factor, however, affects every other factor, and a single indication must be very much stronger than any of the others before it can be considered as dominating the person's reactions.

The Humm-Wadsworth Temperament Scale will never be the sole means of solving the problem of personality. Administration and scoring are relatively easy, but it is difficult to interpret the results which are obtained, and even these results are not infallible. Some personnel workers claim that an interview is quicker and more trustworthy, but this has not been our experience.

Some of a person's reactions can of course be identified and accurately described by an efficient interviewer, but the personality of the interviewer enters in to complicate the situation, and there is also the problem of the applicant who can 'act' a part effectively.

Test Keeps Out Trouble-makers

THE Humm-Wadsworth Scale does not depend at all upon the personality of the individual administering the test, and it has the further advantage of being so long that an assumed point of view is difficult to maintain consistently. The arrangement of the questions themselves disarms all but the most skeptical of individuals, and even those who think they have discovered what the scale measures are almost invariably wrong in their conclusions.

The results we obtain from the Humm-Wadsworth Temperament Scale come uncannily near the truth when they are properly handled and interpreted. It certainly weeds out possible trouble-makers from otherwise acceptable applicants. It is a quick and sure method compared with the usual wait-and-see-what-happens approach.

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Personnel Men will Find the Glareless Illuminated Chart Holder and the New Visual Acuity and Astigmatism Test Chart of Great Help in Making More Accurate Test of Worker's Eyesight and Separating out Cases Requiring Treatment.

New Ideas *in* Eye Testing

By C. E. FERREE AND G. RAND

Research Laboratory of Physiological Optics,
Baltimore, Md.

AT VARIOUS times we have been asked by commercial and industrial companies, health departments, and state and municipal bureaus to give attention to equipment for testing vision. This is an important problem in jobs where fine work is done, in commercial air transport service, in army and navy air service, also for truck operators and motor vehicle drivers.

In particular we have been asked to devise an inexpensive, easily portable chart holder that would be completely glareless and would provide a well distributed, even illumination of the eye testing chart of a correct and standard intensity. It is our purpose in this paper to describe such a chart holder.

New Lighting Arrangement

THE two most important factors in eye testing are, type of test chart used and intensity of illumination of the chart. Of these the more important is intensity of illumination. Apparently now the testing of vision is in general in a very unfavorable condition. A great variety of test equipment is being used and very little attention is paid to the standardization of the illumination of the test charts. Results obtained under these conditions are of course of little value from the standpoint of accuracy or the determination of anything approximating a set of norms. (See Figure 1.)

The lighting device which is used on our chart holder consists essentially of two boxes of special construction and of suitable location in relation to the surface

to be illuminated. It was planned for the illumination of eye testing charts, but may also be applied to the lighting of speaker's desks and music racks. This application is shown in Figure 2 (page 15)

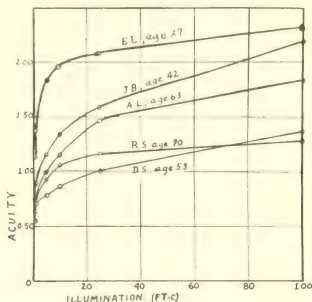


Figure 1. The effect of the intensity of light on acuity of vision at different ages

In Figure 2 are given (a) an outline drawing of the chart holder showing the location of the lighting boxes and their relation to the surface to be illuminated, (b) a drawing showing a cross section of the chart holder and (c) a drawing showing a set of vanes or glare baffles on the inner side of each lighting box. In Figure 4 (page 19) is shown a larger lighting box of the same type built into a portable unit for use on a lecture table or speaker's desk.

Some of the faults of the present illuminated chart holders are: excessive glare from the lighting device, glare on the surface of the chart, a very uneven and poorly diffused illumination on the test surface, high light and brightness on the edges of the chart and near to the illuminating units, an unstandardized and a too high intensity of light, and lack of portability.

It has been the special purpose of our chart holder to correct all these faults. This has been accomplished in the following ways:

The eyes are shielded from glare from the lighting units by vanes or glare baffles, properly inclined, on the inner side of each lighting box. Further to complete the glare protection, both surfaces of these vanes are surfaced in flat black.

Diffusion of the light is secured by placing behind the vanes a plate of diffusing glassware, probably Celestialite glass because this glassware not only gives excellent diffusion of the light but also all the color correction that would be needed. It is

a comparatively thin plate, light in weight, made of 3-ply glass, the two outer plies of opal glass and the intermediate ply of blue glass. An etched plate of Day-light glass could be used, but this would be more expensive.

Diffusion of the light is of course a very important factor in securing evenness of illumination of every part of the chart. By minimizing reflection, this diffusion is also an important factor in eliminating glare from the test surface. The elimination of glare is further effected by the direction of light so that none of the reflected rays can enter the eye.

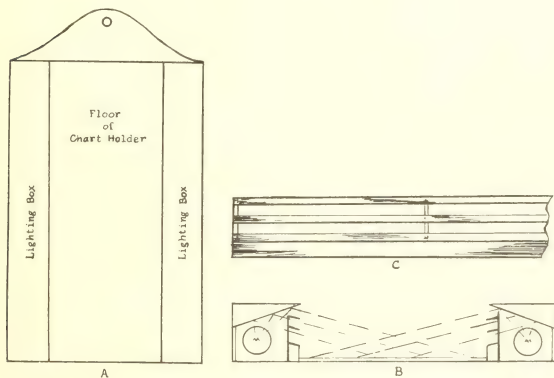


FIGURE 1. A: A chart holder, showing the location of lighting boxes and their relationship to the surface to be illuminated.
B: A cross section of the chart holder.
C: A set of the vanes or glare baffles used on the inner side of each lighting box
(See also figure 4.)

A still further benefit along this line can be obtained by covering the floor of the chart holder with white blotting paper or other mat material in cases where the chart is not as broad as the floor of the chart holder. Diffusion, too, gives high visibility to the test objects themselves. For clear vision, light from every point in the object must be brought to a focus in the image formed on the retina of the eye. For this to take place, every point in the object must be adequately illuminated with well diffused light. Finally, the diffusion of the light serves to eliminate all shadows that might otherwise be cast by the inclined planes.

Light from Opposite Side

High light and high brightness on the floor of the chart holder near the two lighting boxes are prevented by a thin strip of metal of suitable breadth walling off the luminous aperture up to the lowest vane. Thus the right side of the chart holder will receive its illumination chiefly from the lighting box on the left, and the left side will receive its illumination chiefly from the lighting box on the right. In the experimental model of the device, the vanes should be made adjustable in order to ascertain the exact angle of inclination at which they should be set to secure both glare protection and the proper direction or placement of the light. Direction of the light is further aided by an inclined, diffusely reflecting plate of Alcoa aluminum mounted at a suitable angle above and behind the lamps.

In manufacturing the lighting boxes, the standardization of intensity can be secured through a careful selection, seasoning and location of the lamps employed and the use of diffusing glassware of the needed density. (Best results can be obtained with tubular lamps. These lamps are readily available in suitable lengths and wattages.) In this latter connection more than one plate of glassware may be used, the plates having the same or different densities as may be required.

Easy portability can be had by making the chart holder of thin, hard-sheet aluminum and using care in the selection of other material and in the construction to keep the weight down.

Standard Chart Used

THE holder should be made so that any standard chart can be used. The chart which we have recommended, however, as especially suited for the correct and reproducible testing and rating of vision is a double-broken circle chart as shown in Figure 3 (page 17). In the latest model of this chart the test objects have been arranged so that all the sizes (more than double the usual number) can be included with a sufficient number of each size in a chart 10 x 28 inches. It can be obtained from the Bausch and Lomb Optical Company, Rochester, N. Y.

In this chart it is readily seen: (a) That the rating is directly in terms of power to discriminate detail—the function which the visual acuity test purports to measure, not in terms of the power to recognize objects. The power to recognize objects is based on other factors besides acuity of vision, which factors vary with the test object used and the person tested. And (b) that by scoring in terms of power to discriminate detail in the four principal meridians of the eye (horizontal, vertical and the two obliques), the rating is not only in terms of the function which the visual acuity test purports to measure but may very well be said to be absolute in type.

The chart serves too as a surprisingly accurate and delicate means of detecting astigmatism. In this respect it is of advantage that this information is gained without additional work and the use of separate and special equipment.

The feature of variable illumination can be added to the chart holder, if desired,

with very little change of construction. This variation in the illumination should be produced without change in the color or composition of the light, which change would itself alter the apparent acuity. Also the variation in illumination could

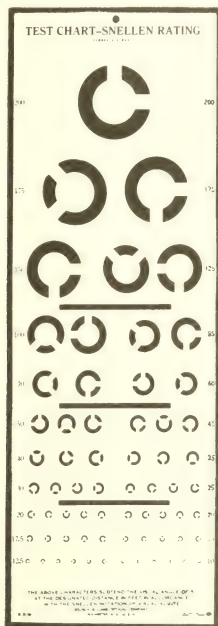


FIGURE 3. The double-broken circle test chart

be made in continuous series from low to high. One of the advantages of adding this feature is the ease it would afford for securing the intensity that is chosen as standard.

Simple Light Variation

THE following change in the construction is all that would be required. An inside wall of thin aluminum could be added next to the diffusing plate. At a

suitable height in this wall a longitudinal slot or aperture could be cut of suitable breadth and of a length almost equal to that of the boxing. In this aperture would be inserted a single vane of this aluminum mounted along its central axis on a slender rod the ends of which pass through the top and bottom of the boxing. On the upper end of this rod will be mounted a button by means of which the vane can be rotated. As the vane is rotated from a position normal to the diffusing plate to the parallel position, the intensity of light is varied from full to approximately zero.

A good diffusing plate such as Celestialite glass will be quite sufficient to eliminate the shadow cast by the vane. With this construction it is quite probable that fewer glare baffles would be needed to shield the eye from the brightness of the diffusing plate inasmuch as a smaller part of the plate is illuminated to a high brightness. Perhaps indeed only one glare baffle would be needed.

An intensity scale can be provided as follows. On the top of the boxing may be mounted in upright position an arc-shaped rim of metal on the front surface of which graduations are marked. Beneath these graduations a slot is cut to receive a pointer which is attached to the rod supporting the rotating vane. At the front end this pointer is bent upward to indicate the graduations on the scale. So positioned, the scale can easily be read by the examiner.

Do Not Use Too Much Light

WITH respect to the intensity of light that should be chosen as standard for the testing of vision the following comments may be of interest.

The intensity should not be too high because high intensities render the test insensitive for detecting defects in eyesight. This is due to the fact that increase of intensity increases the power of the retina to discriminate details. It is particularly important in cases where the visual acuity test alone is used to detect defects in vision and changes in these defects from time to time, as is done in industry, not to use an intensity of light that will render the test unduly insensitive.

The intensity at which the rating of vision is made should have a proper relationship to the amount of light that is apt to be used in ordinary work. This in turn will doubtless ultimately have a reasonable relationship to the amount of light that is preferred for this work. In our test of the amount of light preferred for reading ordinary print (10-point type) based on 550 normal cases ages 10-77 years, the median value was found to be 11.3 ft-c for the total group and to range from 9.25 to 13.65 ft-c for the different decade age groups. In our judgment, however, intensities higher than 10 ft-c render the visual acuity test too insensitive for detecting defects in vision to be recommended for testing vision in the industries.

Seven Foot-Candles Recommended

WE have recommended 7 ft-c for use in the practice of ophthalmology. We see no important reason why an intensity higher than this should be used

for testing vision in the industries, particularly since the testing in the industries has an established close relationship to the testing by the ophthalmologist and since, as discussed earlier in the paper, there is even greater need for a sensitive use of the visual acuity test in the industries than in the practice of ophthalmology.

A more complete procedure would be to supplement the test for the rating of vision with a test made at an intensity low enough to give it its greatest effectiveness for the detection of errors in refraction and of changes in these errors from time to time. For this, the intensity control noted above would be required.

With respect to the cardinal requirements: correctness of illumination, easy portability and moderate cost, the holder will, we believe, give a high degree of satisfaction.

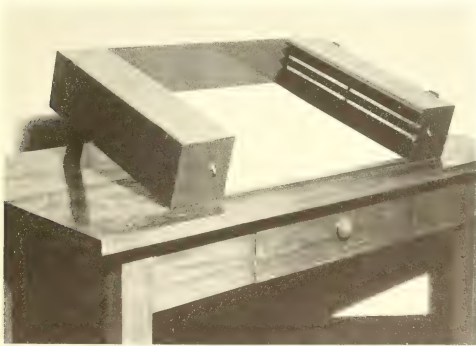


FIGURE 4. Large lighting boxes of the same type as are shown in Figure 2, built into a portable unit for vision lecture tables and speaker's desks.

There is an important use for such a chart holder by eye specialists also. By preference many still use and always will use a printed chart. We do not hesitate to say that in our opinion and experience the best test conditions, particularly for visual acuity, are given by a properly illuminated, printed chart. With it, a better state of adaptation may be had, a clearer definition of the test object, a better diffusion of light and a better background for seeing the test object than can be had by any other type of test equipment. Provided with the feature of variable illumination, ideal conditions for testing vision and for detecting and correcting errors of refraction are obtained with the printed chart.

It is the latter connection the very great importance of making the test at low illumination will be remembered. The specialist who uses medium or high intensities of illumination for detecting defective vision is working against himself. By giving greater power to discriminate detail, the higher illumination enables the test object to be seen even when its image is blurred. Obviously, then, when one wishes to detect small defects in the image or to decide which of two correcting glasses gives the better result, a low illumination should be used. This is particularly important in case of astigmatism when one is trying to decide what is the proper strength of correcting cylinder and what is the best placement of its axis.

The use of intensity of light in eye testing is just the reverse of what it is in lighting. In lighting, intensity is used to compensate for errors in the formation of the image; in testing and correcting for errors of refraction, it is used in a way that will most clearly reveal these defects. In earlier days there was great confusion on these points. In refraction, as well as in lighting, the tendency was to use high intensity of light and to give the clearest vision of the test object. Happily, today we know that this is not the correct procedure.

Perhaps the most widely used test of human powers is that of acuity of vision. In proportion as it is widely used there is need to provide a foolproof equipment. As the situation now is, the testing of vision is one of the most loosely conducted tests we have. Not only has there been no substantial change in the principles and procedure of making the test since the days of Snellen, but even the principles laid down by him are not complied with in a very great part of the testing that is now being done.

Testing Now Inaccurate

SO FAR as restriction or supervision is concerned, almost any type of test chart may be used under any type or intensity of illumination. The variable difficulty of task to which the eye may be subjected under these conditions of testing is a sufficient guarantee that consistency of result will not be obtained in testing the same person at different times and in different places, and that the test will not serve the important purpose for which it is intended.

With respect to type of test chart, it may be noted that capital letter charts are sold and used without difference or distinction, some having letters constructed to meet the 1/5 minute requirement of the Snellen rating scale and others not meeting this requirement even when manufactured and sold by the same firm. Moreover, letters of the same size selected for use as test objects may in the different charts of each of these types, set a very different discriminative task for the eye. Inaccuracies in the dimensions of the letters used are also of frequent occurrence.

THE NATIONAL LABOR BOARD
WASHINGTON, D. C. 20540
OFFICE OF THE DIRECTOR
ATTENTION: Mr. [Name]
[Address]
[City, State, Zip]

Labor Board Director's Views

Mr. [Name]
[Address]
[City, State, Zip]

It is with pleasure that I receive your request for a meeting with me and a team of my staff. I am sure that the fact that you are willing to meet with me is a reflection of the fact that you are a person who is interested in the labor movement and in the rights of workers. I am sure that you will find the meeting a most profitable one. I am sure that you will find the meeting a most profitable one. I am sure that you will find the meeting a most profitable one.

Very truly yours,

The National Labor Board is a federal agency that is responsible for the enforcement of the National Labor Relations Act. It is a quasi-judicial body that is composed of five members, three of whom are appointed by the President and two by the Senate.

The Board's primary function is to investigate and settle disputes between employers and employees. It also has the power to issue orders to employers and employees to comply with the law. The Board's decisions are final and binding on the parties to the dispute. The Board's decisions are final and binding on the parties to the dispute. The Board's decisions are final and binding on the parties to the dispute.

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But that is not the industrial democracy few will deny. As Professor Johnson puts it: "The perils of political democracy were very much in the minds of the founders of this Republic. Yet, having experienced the cultural and moral failure of autocratic rule they were willing to take the risk of entrusting the control of government to the rank and file. That the venture has justified itself in terms of government no one who believes in America will deny."

Politics of Industry

TODAY industry is suffering from a paralysis of fear. I am putting forward the thesis that the only possible course in industry is the one that we followed in politics—to trust democracy. . . . We have now to deal with the *politics* of industry, the methods of industrial government, as well as with *the politics of the state*, and the same general considerations govern in the one field as in the other."

Thos. A. Boggs, in his recent book, *Where Does America Go From Here*, gives us something to think about when he writes, "Business men who are realists appreciate, though few will openly confess, that their's is a losing fight. Government, representing the people, must win in the long run. Democracy in the modern conception is majority rule, with little or no concern for the minority rights. Labor, essentially of the majority, must win. Capital and Management, inevitably of the minority, must lose. The ultimate extent of the winning or losing, like the timing of the blow, cannot be calculated in advance."

It will presumably be a continuing process, requiring the present and the next generation of business heads to accommodate themselves to an ultimate demotion which if they are wise, they will accept in the spirit of Keat's Neptune addressing the deposed Saturn:

We fall by course of Nature's laws,
Not force;
So on our heels a fresh perfection treads."

Moderation, Concession and Conciliation

ADAPTIVITY or the ability to meet change has been the outstanding characteristic of business management. The success of capitalism during the last sixty years, a success almost beyond measure, may be traced largely to management's ability to meet the many changes which were more numerous and more extensive than in the previous fifteen hundred years. Yet for reasons that perhaps psychologists can best explain, management has during the past decade tried to buck the inevitable, has failed to continue the liberal minded spirit of moderation, concession and conciliation that characterized the successful business man of the ninety years preceding.

Dr. Alvin Johnson in a recent article said, "A sea change is coming over Ameri-

can labor, a sea change produced neither by John L. Lewis nor by the man in the White House. And the prospects for a peaceful development of American industry are not reassuring, if management proves incapable of supplementing its traditional dictatorial discipline by a discipline by consent. We shall not have an adequate machinery for industrial peace until our captains of industry develop the political wisdom to inquire not what organization and what leaders are most friendly to capital but what organization and leaders are the most authentic bearers of the workers' consent."

If we consider the operation of that law with which I am closely concerned, the National Labor Relations Act, and examine even if only briefly, the opposition, the bitter and vitriolic denunciation heaped upon it and its administration, we find an outstanding illustration of management's outstanding failure to adapt itself and to continue its traditional liberal minded spirit of moderation, concession and conciliation.

Four Evils of Opposition

IF A labor law contains no provision for administration, the law is dead. If the administration is inadequate or ineffective a good labor law may be weak and only partially enforced. But a labor law, when vigorously and wisely administered, may be made a constructive force. Incompetence, inefficiency, and partiality impair the confidence of labor, employers and the public. Our administrative agents are on the whole competent, honest and aggressive. However, often their best energies are directed not alone to enforcement, but to meeting studied and organized opposition.

Opposition results in four evils. First, there is a loss to management, through constant expenditures, long drawn out and expensive litigation. Second, the antagonism of employees is aroused, their faith in the integrity of management, and their pride in the concern falters, resulting in a shattered morale, lessened productivity and profit losses.

Third, believing that the labor laws are being flouted, workers may listen to leadership that advocates undue economic action and again profits are threatened, to say the least.

Fourth, resentment on the part of the workers may result either in pressure for more stringent labor laws or a process of reasoning that may overcome the innate good sense of our workers which has kept them proceeding along moderate lines, without bloodshed. Neither of these alternatives will help profits.

What Should Management Do?

WHAT should management do?" "How can it meet the ever increasing demands and still make a profit?"

Of little or no value is the customary academic answer, "Business must seek

to achieve a high volume, low price internal economy which will sustain a high-wage scale, which in turn will support a high standard of living, which will demand and pay for the high-volume production at prices determined by its wages."

Individual firms will meet problems as successfully as the wit of management will permit. There are so many approaches, that it seems almost superfluous to mention them. Why resist unions? Why not recognize them? Why not bargain collectively? Labor leaders today are of two types—the organizer, persuasive, forceful and dynamic who works best against employers who are tough, unscrupulous and resistant. When the employer changes his views, the second type of labor leader enters the picture.

These leaders are men of intelligence, decision and courage, and are well acquainted with the facts of technological advancement. They know how industry has stepped up production and how labor has failed to gain in proportion. Unfortunately management sometimes conceives collective bargaining as a process of beating labor down to the last fraction of a cent. One outstanding lawyer in Los Angeles often boasts, "Well another collective bargaining conference is over, and we gave them exactly nothing." Incidentally, this attorney's clients have had more labor trouble than even these troublous times warrant.

Vacations Cost One Cent per Hour

WHY recognize unions? Because employees have as much right to organize and bargain collectively as investors have to organize in the corporate and other forms of business association.

When bargaining collectively, really try to meet the problem, coöperate. Vacations with pay actually cost approximately one cent per hour of working time, and how much they yield in improved morale, increased efficiency and public good will? Have a labor representative on the board of directors. If charged with a violation of law by a governmental administrative agency, do not hamper its investigation, resist its efforts to secure adjustment or doubt the integrity of its agents. The employees of the administrative agencies are on the whole fairly able, essentially honest, tolerably well versed in the problems of their division, and eager to do their job impartially and efficiently—coöperate with them.

Of course management has found in the past that concession, conciliation and moderation are not without their costs. But we are on the threshold of better times and labor unrest is directly correlated with the business cycle. Avoid unrest to increase productivity. By taking a smaller profit per unit management may avoid a complete loss of profits.

American labor doesn't run to the use of force. Meet it halfway, or even a bit more, and you will find that your coöperation will pay dividends.

Labor's newly found strength must be directed into the proper channels. The outstanding leaders of labor are committed neither to Communism or Fascism,

if they are permitted to lead labor along the road of democracy. Their knowledge of technology, of industries' ability to share will impel them to temper demands to circumstances. If, however, they lose their position as leaders, they may be supplanted by less informed, less scrupulous men who in their zeal may lead labor into less desirable paths. If these intelligent, progressive leaders are not permitted to lead, management must share the blame and the losses.

In other words, management must recognize that labor's strength is increasing and that to cope with it management has the choice of either fighting and taking a chance of losing all profits or making concessions and adapting the industry to the changed conditions, thereby continuing to make profits.

Robert R. R. Brooks in his recent book *Unions of Their Own Choosing* puts the case before us very clearly: "The whole surge of economic development has been in the direction of centralization of power, interdependence of all parts upon each other, increasing complexity, and the inability of the individual to control his economic destiny. The individual worker cannot assure himself of employment, of freedom from industrial accident and disease, or of old-age independence. The individual consumer cannot assure himself of decent quality or of a reasonable price of the goods he buys. The individual investor cannot assure himself of the proper care of his funds.

Citizen's Loss of Earning Power

THE utmost expenditure of energy and initiative by the individual farmer or small businessman cannot assure him of a livelihood. The years of training of professional specialists—engineers, doctors, lawyers, teachers—do not assure them of employment or freedom to follow their professions where their faiths may lead. To just the degree that economic life becomes vast, interdependent, complex, and centrally controlled, the average citizen loses his individual power to secure a livelihood.

Under these conditions, a good living can be assured only by concerted action toward such common goals as employment, health, old-age independence, opportunity, and professional freedom. If these objectives are to be reached, however, the political institutions through which individuals attempt to control their economic lives must conform to the new economic society. One change which is forced upon political institutions, not by conspiring politicians of any particular party but by basic economic evolution, is the growth of federal power at the expense of state and local authority."

For nearly six decades the government has taken a hand in solving problems created by economic changes. The more recent advances relate to security exchanges, housing, food distribution, relief, hours and wages, and labor's right to organize. While all of these agencies have been designed to foster the trend toward industrial democracy, perhaps none of them has been more directly concerned with

this process than has the N.L.R.B. operating under the N.L.R.A. Few have been as widely discussed.

50 Years of Labor Regulation

THE N.L.R.A. was not an entirely new experiment for the Federal Government. For more than five decades the Government has been gathering experience in the field of labor relations, first as a military preserver of the peace in strike areas where local and state governmental agencies claimed to be unable to control the situation. The Federal Government frequently intervened in labor disputes through injunctions granted by its courts. In 1886 the Government started its lengthy and most intimate participation in the labor relations of the railroads. Following this in rapid succession the Government participated in investigations of labor disputes.

Senatorial studies of the causes of disputes, formation of commissions, creation of a Bureau of Labor, a Department of Labor, the National Labor Board set up in conjunction with the National Industrial Recovery Act, the first National Labor Relations Board, and various other boards for special industries such as coal, newspapers, textile, ship building and ship repairing, steel, cotton and the longshore industry. Out of these experiences principles were developed that gradually became acceptable to courts of law, economists and industrialists, and finally became the law of the land.

Act Stimulates Organizing

THE National Labor Relations Act does no more than establish as law these principles recognized in this country for nearly a century. The National Labor Relations Board has two main functions: to prevent employers from engaging in unfair labor practices, and to investigate any controversy affecting commerce which has arisen concerning the representatives selected by the majority of workers, i.e. the N.L.R.A. is concerned almost wholly with the progress of industrial democracy.

What has been accomplished by three and one-half years of the National Labor Relations Act? Organizing has been stimulated; union membership, despite the unprecedentedly unscrupulous belligerence of some employers, has more than quadrupled. Through collective bargaining wages have been raised, hours cut, and conditions improved. Strikes have been averted, employers have bargained, and out of the bargaining has come understanding and amicable settlement of differences, with resultant savings to individual firms and to society as a whole.

From an address delivered before the California Personnel Management Association, Oakland, California.

"The Growth of Knowledge since the Days of Aristotle Ought to Convince Us that We Have no Reason to Despair of Our Ultimately Mastering Any Problem However Difficult it May at Present Appear." Karl Pearson.

Merit System Research I

BY MAX FREYD

U. S. Social Security Board,
Washington, D. C.

THE steady increase in numbers of public and private employees who serve under one type or another of merit system, has brought to the fore complicated and important problems of administration, many of them peculiar to this system.

Recognition that research can make a material contribution to the solution of these problems is evidenced by the increasing amount of practical research work, special studies, and developmental work which is being carried out in merit system administrations through their research offices or through special assignments to members of their staffs. To show the range of problems to which research may be applied with profit, there follows a listing of some fields of investigation which have already received attention or which seem to deserve it.

Merit System Forms

AN ILLUSTRATION of an important type of research on merit system forms is to be found in the annual reports of the United States Civil Service Commission for the fiscal years 1928 and 1929. In these reports Dr. L. J. O'Rourke, Director of Research, describes a study he made leading to the improvement of the Commission's application form.

It was found that fewer than 4 percent of the applications received for examinations for clerk or carrier in the Post Office Department were actually complete when first submitted. Considerable delay and expense were involved in reading

these applications for correction and for completion. To meet this situation, a tabulation was made of errors in filling out the application form, and as a result the form was revised to make it clearer. When this revised form was put in use, it was found that the number of applications which were complete and correct when first received was increased from 4 percent to 71 percent.

The application form, as one of the most important forms in merit system administration, fully deserves such careful study as the above, and the results clearly demonstrate the value derived by the merit system agency from such a survey. There are other matters regarding the application form which also deserve investigation, as for example: Was there any difficulty in reading the entries on the form because of inability to distinguish between the applicant's writing and the printing on the form?

Paper and Ink Problems

SHOULD the color of the application form and the color of the ink used in printing be in contrast with the color of ink commonly used by applicants, in order to make the written entries stand out clearly? Was the paper stock durable enough to withstand frequent handling and yet light enough to keep mailing costs to a minimum? Was the arrangement of material on the form such as to facilitate scoring the applicant's record of education and experience and recording necessary data in the office of the merit system agency? Is there value in printing the application form with detachable examination admission slips whose address is to be filled in by the applicant?

Inquiries which suggest themselves with regard to office forms and procedures in general are: Are the forms in use adequate and up to date? Are any of them in need of revision to meet new and changing conditions? Are new and additional forms required, or should there be a reduction or combination of forms now in use? Is the use of the forms and procedures clearly explained to the staff of the merit system agency?

Can One Form Be Used?

IS THERE difficulty in alphabetizing or filing certain records because of variation in their size, or because the space for entering the file name or number is inconveniently located? Is the need for writing (rather than checking) on the forms reduced to a minimum? Is unnecessary or irrelevant material called for on certain forms? Has the use of window or cut-out envelopes been considered in order to save time and reduce errors?

Do procedures reduce to the minimum the necessity for folding or unfolding forms? Are the office procedures designed to bring about the greatest efficiency and saving of time in the process of examining and preparing registers? To what extent do appeals from applicants indicate need for improvement of forms and

procedures? Is there merit in a plan which permits general application for any or all examinations through a single application form?

A troublesome question in merit system administration is to determine how much time to allot to each phase of the examination procedure. Intangibles, as for example the number of persons expected to apply, are so great that it is extremely difficult to make exact estimates. However, because some estimates must be made, it is important to survey past experience in order to come to the most reasonably accurate estimates.

Analysis of past experience, therefore, with regard to the time required for various phases of the examination procedure, from the preparation of the announcement to the completion of the register, can profitably be carried out for all conditions which the merit system agency has faced. This analysis should be of practical value in budgeting time allotments for future examinations and also in pointing out where there is need for improving procedures to reduce the time required for certain phases of the work.

Public Announcement of Examination

IT MAY be worth while to prepare a list of the periodicals and agencies to which examination announcements were sent, with check marks to indicate which of these failed to use the material. This table may be of use in future examinations in indicating where a follow-up by letter or by personal call will be advisable in order to insure publication or display of the announcement.

Another study which suggests itself with regard to examination announcements in an analysis of correspondence with the public relating to the examination, bringing out the points on which there was most confusion in the public mind. This should lead to the improvement of announcement material prepared in the merit system agency, or a closer check on information relating to the examination which appears in the public press, in order that correspondence may be reduced. It may be found that much of this correspondence results from inaccurate statements in newspapers.

Newspaper Releases

NEWSPAPERS hesitate to follow the exact wording of a printed or mimeographed press release because they prefer to interpret the news in their own style and to their own public. Can this attitude be met by issuing to the press a mere statement of essential facts regarding the examination from which each newspaper may construct its own story? Will statements of this sort be more accurately used than statements in a running literary account?

Tabulations may well be made of the numbers of persons who submit applications without possessing the basic requirements for the examination as stated in the information circular. Available methods can be used to determine to what extent

these applications were due to faulty wording of the announcement material or to a desire on the part of the applicant to take a chance with full knowledge of the requirements. Steps may then be taken to reduce the number of such applications.

It may be desirable to prepare distribution tables showing the occupations and educational backgrounds of those who apply, in order to discover whether there is a concentration of applicants in certain occupations or with training in certain colleges. A table such as this may lead to a further study of the methods whereby these particular groups were motivated to apply, and may show what procedures should be adopted in order to secure a more widespread distribution of applicants. Successive tables will show changes in type and character of applicants.

Other questions relating to public announcements of examinations which seem to deserve study are: Is there any assurance that announcements when sent to colleges reach the proper department? Are sufficient copies sent to colleges which have several departments in which students or faculty may be interested in the examination? Are any organizations or names omitted from the list which belong there for reasons of policy? Is it advisable to use classified advertising? Is it advisable to send representatives to colleges to arouse interest among the best qualified students? Have adequate lists been secured of members of professional societies for mailing purposes? Has the use of a general pamphlet for the public describing the merit system administration been considered?

Nontechnical Information Booklet

DURING the World War when manpower was scarce and salaries were more attractive in private employment, the Civil Service Commission was obliged to issue an announcement regarding the advantages of employment in the Federal Civil Service, including the attractions of working in Washington with its parks, symphony concerts, art galleries, museums, educational facilities, library facilities, etc. The Commission has not used such material since then.

About 10 years ago, the Wisconsin State Civil Service Commission, now the Bureau of Personnel, issued a Bulletin of Information containing complete information on the type of positions to be filled through competitive examinations, the number of positions which were open, salary ranges, etc., all prepared in simple, nontechnical language.

The Indiana Bureau of Personnel recently issued a circular entitled the "Indiana Merit Plan" which explains to the applicants the workings of the merit system under which positions are filled in the Public Welfare and Unemployment Compensation Administrations in that State.

Preparation of Written Examinations

THE examinations themselves offer by far the greatest field for research. It is possible here to name only some of the most promising types of research which may be carried out on examinations.

It may be worth while to point out the scope of the research procedure in examination construction which has been envisioned by the United States Civil Service Commission. Dr. O'Rourke, in the annual report of the Commission for the fiscal year 1923, outlined the following succession of studies as parts of the research procedure in the construction of examinations:

- "a. Duties of the occupation.
- b. Proficiency necessary in each of the duties.
- c. Human qualifications necessary to attain such proficiency. These include:
 - (1) skill and knowledge—training and experience
 - (2) general intelligence—ability to learn and adapt to new situations
 - (3) special aptitudes, including such qualities as ingenuity and constructive ability
 - (4) personality and its various manifestations
 - (5) physical qualifications, general and special
- d. Relative importance of those qualifications for fitness in the occupation.
- e. Devising examinations, oral, written, or both, to measure these qualifications.
- f. Determining the best method of giving examinations, the importance of sample questions, specific directions, and methods of scoring; and the possibility of making several series of the same type of examination which will be of equal difficulty.
- g. Trials of proposed tests upon groups whose relative efficiency is known.
- h. Selection or rejection of tests on the basis of statistical evaluation resulting from the trials.
- i. Assigning of relative weights to the several tests included in the examinations and determining, on the basis of statistical evaluation, the score to be required as a passing grade."

The Research Division of the United States Civil Service Commission has pioneered in an important phase of research on examinations, namely, the analysis of individual items as well as the examination as a whole. Thoroughgoing research procedure includes the administration of a preliminary form of the examination, with each item on a card, to various groups of persons. Items are timed separately and everyone is permitted to try each item.

This procedure makes it possible to construct an examination whose items are of known validity and reliability; whose items are graded in order of difficulty; and whose items require the least time to complete. It permits also the construction of alternate forms of an examination which are in all respects practically identical. It permits a check on the clarity of the instructions to examinees.

Analysis of Results of Examinations

STATED in other words, there is a major field for research, prior to the administration of examinations, in constructing written examinations which meet such requirements as validity, reliability, objectivity, proper length, ease of administration, ease of scoring, proper distribution of scores, correct technical construction of items,

and correct time limits and passing scores. Included also is the problem of determining the extent of the total examination and the weight to be given the component parts in the total score; this involves considerable research on the positions to be filled and is more than an investigation for the purpose of job classification.

It is not always possible to carry out all the steps described above in the preparation of examinations, and in many instances reliance has to be placed on *a priori* judgments. Whether or not the preliminary research work has been possible, the lessons learned as a result of the examinations may be applied in future examinations of a similar sort.

The merit system agency will be fortunate if it has access to tabulating machines, since there is much to be gained by placing the examination results on punch cards. One card should be punched for each participant, showing his score in each part of the total examination, that is, his score in the written examination, and his rating in the oral examination and in education and experience. It should, furthermore, show the answer he checked for each true-false and multiple choice item.

Skipped Items Seen

THIS will indicate the items he skipped and also the last item he attempted. It should indicate his rating on each factor in the oral examination. It is needless to point out what a wealth of material will become available with the use of such a card.

One of the first steps is to prepare distribution tables of total scores in each examination and in each major part of the examination. The form of distribution will be easier to study and analyze if it is graphed.

The form of the distribution will throw light on mistakes that may have been made in preparing or timing the examination. If the maximum score is 100, and if a very large proportion of applicants secure this score, then the examination has little discriminating value.

Too large a proportion of the applicants are able to pass the examination and thus become eligible for certification, and the differentiation in ability among those who pass the examination is difficult to establish accurately. Such a distribution is likely to result in many tied scores.

When Exam Is too Easy

IF SCORES are clustered about the midpoint of the range of possible scores, it may be an indication that the examination was too difficult or that the time limits were too short for practical purposes. Without adjustment of scores and with a fixed passing score of 70, such a distribution may result in an insufficient number of eligibles, if the number of examinees is relatively small and a great many positions are to be filled. Analysis of the number of items skipped may indicate whether the examination was too difficult or the time limits too short.

If the distribution is decidedly irregular, even when using reasonably large class intervals, it may be an indication that the items were poorly graded as to difficulty, and the analysis of items will indicate a better arrangement of items if the examination is to be repeated.

In order to determine the reliability of the examination, scores in even numbered items may be correlated with scores in odd numbered items.

The major parts of the examination may be intercorrelated with each other and each may be correlated with total scores. This may indicate whether or not the separate parts measure the same thing and thus lead to duplication of work. Correlations between scores in written examinations and ratings on education and experience may indicate to what extent achievement in the written examination depends upon specific training.

Similar correlations between ratings in oral examinations and in education and experience may indicate the extent to which raters are influenced by the background and training of those whom they examine. All intercorrelations described in this paragraph should be worked out separately for each examination that is given, since factors which vary with the types of applicants and the positions for which the examinations are given will influence the intercorrelations.

Measuring Weightings

WHERE a combination of tests is used in an examination, it is common to weight them to correct for differences in the range of scores and standard deviation of the various tests, and also to weight for differences in the importance or validity of the various tests. It may be worth while to correlate total scores obtained through the use of such weighting formulas with total scores which are a mere unweighted summation of the scores in the various parts, in order to determine whether anything is gained by the additional computations.

If efficiency ratings are available on persons who have been appointed from a register, correlations may be worked out between these ratings and scores in the examination. This will throw some light on the value of the examination. It may also indicate a better weighting of the various parts of the examination than can be arrived at through *a priori* judgment.

Are Timid Applicants Scared?

A SURVEY of the examination forms will indicate to a certain extent the difficulties which applicants faced in adapting themselves to the examination situation. Some for example may have given up without even attempting the examination. An error may have been made in placing extremely difficult items at the beginning of the examination, which had the effect of scaring off the most timid applicants. Analysis of the answer sheets will indicate whether or not applicants had difficulty in matching up the items and the answers. If there is a tendency for

applicants to place their answers on the wrong lines or not opposite the appropriate number on the answer sheet, a modification of the answer sheet or instructions may be necessary. If instructions at the beginning of the examination have not been followed correctly, that is, if answers have not been placed where they belong, if several alternatives are checked in multiple choice items, or if applicants do not start and stop at the correct places, then clearer and more definite instructions may have to be placed in the examination booklet.

Other fields of research on the examination results include the value of an answer sheet, the establishment of the greatest efficiency and speed in scoring examinations, the sources of error in scoring, etc.

Item Analysis

ITEM analysis of the results of written examinations by the use of punch cards will make possible certain investigations which might not have been practicable in the course of the construction of the examinations.

Tables of frequency of correct answers to true-false and multiple choice items will disclose the relative difficulty of items and facilitate their arrangement in proper order when constructing future examinations. Items may be avoided in future examinations if the proportion obtaining the correct answer is excessively high or excessively low. If for example 95 percent of the applicants answer a true-false item correctly, that particular item has very little discriminating value. In other words, it is so easy that practically everyone gets the right answer.

On the other hand an item which is answered correctly by 5 percent of the applicants has little value because practically no applicant knows the answer. A few extremely easy items are commonly used at the beginning of an examination and a few extremely hard ones at the end of the examination, with the great majority of items of such difficulty that they may be correctly answered by between 30 and 70 percent of the applicants.

In multiple choice items the confusion value of the incorrect alternatives may be determined through tabulations from the punch cards. The tabulation may disclose that for a given item certain incorrect alternatives are never checked, whereas others are frequently checked.

Desirable Confusion

THIS may require a recasting of the alternatives in order to bring about a more nearly equal confusion value among them. Items which are too easy or too hard and which ordinarily would be discarded may thus be saved for future examinations by rewording the alternative answers. If desired, scoring weights may be computed for incorrect answers to multiple choice items.

Each item in each part of an examination may be correlated with the total score in that part, and no item retained whose correlation is very low or negative.

An item which is correctly answered by 50 percent of the group may on the basis of difficulty alone have claim for retention in the examination, but it may not be deserving of retention if the 50 percent who get it right are the lowest 50 percent in total score.

An item which, as pointed out in the previous paragraph, correlates negatively with the total score, and thus has a tendency to destroy the internal consistency of the examination, may actually have more validity than the total score. This can only be determined by correlating scores in each item and in each part of the examination with a good criterion of success at the job.

If it is desired to recast completion items or items answerable by a single word into multiple choice items, there is some value in making a tabulation of answers supplied by applicants to such items in order to secure alternatives with good confusion value.

This is the first part of an important and comprehensive paper. The second part will appear in the June Personnel Journal.

The ideas expressed herein are offered on the responsibility of the author; they do not necessarily reflect the personnel policies of the Social Security Board.

Grateful acknowledgment is made by the author for assistance received from Dr. L. J. O'Rourke, of the United States Civil Service Commission, and Dr. J. W. Hawthorne, of the United States Social Security Board.

Private Agencies Doing Employment Work now Give More and More Attention to Clients that are Difficult to Place, such as Inexperienced and Untrained Workers, Applicants with Personality Difficulties, and Older Workers Who Have Been Displaced or Who Have Never Worked.

Aid for Job Seekers

By CARYL PEANSUEHL
AND ELIZABETH A. McALPIN
YOUNG WOMEN'S CHRISTIAN ASSOCIATION,
Chicago, Ill.

WHEN Suzy graduates from high school next June, she will have one chance in nine of going to college, two chances in five of going to work within a year, one chance in three of getting married before 1944, and one chance in ten of working after she marries. In the past forty years, stenographic jobs for women increased from 21,000 to 750,000, and yet today, because of the increased output of semi-skilled office workers from the schools, there is only one such job available for every three applicants.

Chicago Y.W.C.A. Uses Tests

FACTS such as these explain the ever increasing demand for vocational guidance and why, for the past five years, the Chicago Y.W.C.A. has given vocational tests and counselling in connection with its free employment service. As the State Employment Service has improved, the private agencies doing employment work have given more and more attention to clients that are difficult to place and therefore need special help. These are inexperienced and untrained workers, applicants unable to hold jobs because of some personality difficulty, and older workers who have been displaced or who have never worked before.

In round numbers, 700 women register each month for work at the Service Department. Only a few of these can be referred for tests, and the referrals are made on the basis of need. When the placement secretary finds some difficulty she is likely to suggest tests and special counselling. Employed women also ask to

take the tests in order to plan for their future more intelligently, and an increasing number are referred by other social agencies. There are always more requests than can be cared for, since individual counselling, together with the correct administration, scoring and interpretation of the tests, takes time and skill, and is therefore expensive.

Follow-up Survey

WHEN 500 women had availed themselves of this service, a follow-up study was made of the results. Each woman had been given a series of standardized tests appropriate to her age, schooling and need. These were designed to reveal her general mental ability, personality characteristics, various aptitudes and vocational interests, and a written report had been made to the agency or secretary referring her. Forty-one women had come back later for additional interviews, sufficient to constitute a follow-up. Cards were sent to 308 others, 52 of which were returned. These cards asked if the counsellee was now working, and if so, how she obtained her job; if she had taken additional training or changed her vocational plans after taking the tests; and if she considered the service had been of real value; of little value; or, if she had received help other than vocational. The card also asked if she would like to come in for another interview and left a space for additional comments.

No cards were sent to those who had taken the tests within the past six months, and all the cases occurred in the years 1936, 1937, and 1938. Of the 93 cases on which follow-up information thus became known, 41 are now working, 26 took more training as a result of the tests, 19 changed their vocational plans, 56 felt the tests were of real value, 8 felt them to be of little value, and 62 requested another interview.

Now Confident and Happy

THE comments were especially interesting. One girl, who had been discharged from her last job and had been so depressed by her inability to find work that she had contemplated suicide, says: "The service of your testing department to me personally has been invaluable, and in my opinion is the only intelligent approach to make in helping people find jobs. I think the personal interview is especially important with the tests to bring out the points for discussion." We found an excellent job for this girl, and the counselling extended over a period of two years. She has had medical and dental work done at our suggestion, and is now transformed in her appearance and both confident and happy.

"The interest and cooperative attitude of your adviser meant a great deal to me."

"I received medical help that was badly needed. I appreciate the service, even though I have no position."

"I do not think I am a good sample. I am certain that vocational tests are helpful as a rule."

As a result of a number of interviews, and the tests, I am taking a second look at myself.

"I thought you had forgotten all about me."

"My tests not only got me a job but pointed out faults I didn't know existed, and helped me to correct them."

"I appreciate very much being kept track of."

"Your tests, plus the excellent guidance of the counselor, gave me a great deal of courage for my vocation."

"I have received personal and educational counselling that has been invaluable."

Of the group followed up, the ages ranged from 15 to 49, with an average age of 25; their I.Q.'s ranged from 78 to 137, with an average of 107; and their education ranged all the way from grammar school to M.A.'s, with a few still in school. 80% of the group had at least a high school education.

Rating the Counselling

BEFORE reading the cards that were returned, the counselor went through the individual folders and gave each a rating of A, B, or C, based on what she considered the value of the counselling to have been. When the counsellor thought the advice she had given was good and likely to be effective an A was given; when some specific suggestions had been made, a B; and where nothing very constructive seemed to have resulted, C. The latter grade included cases which had never returned for a second interview, and those in which the interview had revealed little, and when the main value of taking the tests had been in overcoming fear of them, so that in a subsequent employment situation a better showing could be made.

It is interesting that in general clients gave the counselling service a higher rating than the counselor. 33% of the clients gave the counselling an A rating, that is they thought they had benefitted specifically from it. Almost all others rated it B, indicating that they thought they had obtained some benefit from the specific suggestions received. The counsellor was more modest in estimating the value of her own work. She gave herself only 20% A ratings, 45% B ratings, and 35% C ratings.

Best Clients Benefit Most

THE average mental ability rating of those who checked the service as of real value was almost 15 points higher than that of those who checked it as of little value. Perhaps this again verifies the ancient truth that "To him that hath shall be given"—a hard saying but far too apparent in a competitive world. It is significant also that every client in the A group was either working or still in school. Perhaps this too is to be expected. One finds the counselling satisfactory when one is doing satisfactory work, either as a result of counselling or because one is capable and would have done so in any case.

And now for a few actual cases. Miss L. was an information clerk at 28, but her life goal was to be a teacher of dramatics. Fortunately, the tests showed that she had both the superior intelligence and the character necessary to arrive eventually at her goal. Her father had died when she was a baby and she had had to start work after graduating from high school at 17. Besides helping younger brothers and sisters through school, she had taken college courses at night until she had accumulated two years credit, and during the past 11 years had also managed to save \$800. Should she now make the break, give up a steady \$100 a month job and finish college?

Encouraged to Quit Job

WE FELT justified in encouraging her to do so. On our recommendation, she chose a teacher's college where her money would go as far as possible, made excellent grades, was active in campus activities, secured a WPA job as a teacher of typing which paid her \$25 a month during her senior year, and graduated with honors. She was then eager to go and secure a Master's Degree. Because of the excellence of her school record, we were able to help her get a summer scholarship at a graduate school of Speech, and later recommended her for a job in the library and a half scholarship, both of which she secured. Living at home, she was able to get her Master's Degree, and last fall received the long coveted teaching job in a small college. She writes, "Happy? Indeed I am. Still ambitious? Why not!"

What did vocational counselling mean in her case? First of all, a longtime process, no single event. Using our knowledge of her we gave her encouragement and practical help where she most needed it. The responsibility was always hers, but without our reinforcement and aid at various points, she might still be at the information desk today.

Few Encouraged to Continue Schooling

THIS case has been given in some detail because it illustrates so well what we have been doing in the past five years. There is now a graduate student at Columbia who was a bank clerk; another at Stanford, who had been discharged as a failure from her office job; several are in training schools for nurses.

Comparatively few of our clients go on to school, however. Some are, as gently as possible, dissuaded from doing so. Some, in spite of our best efforts, insisted on going on, only to meet with repeated failure. Others, when capable, are encouraged to get more office skills. Those who are not qualified to compete for office work are shown why and urged to investigate more appropriate occupations.

One girl took the tests to find out why she could always *get* but never *keep* a job. When asked why she had left her last one, she said she had become very angry when her employer scolded her for being late, had thrown the keys at him, and left. It

was the only time she had lost a job, and at long last she was beginning to see why. Attractive but incapable of meeting the requirements of work, she could not tolerate discipline and wanted to dictate rather than accept orders.

Cook Returns to Kitchen

A MARRIED woman was planning to leave her second husband and go to work. She really loved him and after an hour's talk decided that she had not done her full share to make her marriage a success. Another, weighing 240 pounds, wanted a divorce. Her only skill was cooking. When told she would first have to reduce at least 50 pounds and then get a job cooking in some one else's kitchen, she looked childishly disappointed. "Is that all you have to tell me?" she asked. "No, but that's the first suggestion." She is still married and cooking in her own kitchen, and probably still weighs 240 pounds.

Tragic or humorous, good abilities or poor, each case is unique, and each requires careful thought, knowledge and skill. Are tests and individual counselling worthwhile? The Service Department of the Chicago Y.W.C.A., after a careful study of the results of a five year trial, believes that they are.

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Already There have been Cooperative Undertakings Outside the Agreement Which have been Highly Important. Perhaps the Most Important has been the Cooperative Development of a Method of Job Analysis and Job Appraisal.

Industry Wide Union Agreement

BY ALEXANDER R. HERON

Crown Zellerbach Corporation,
San Francisco, Cal.

THE report which I bring you deals with a structure for collective bargaining having some features different from most procedures now in effect. To make the description intelligent, a quick survey of the background of the industry will help.

The paper manufacturing industry on the Pacific Coast began some seventy-five years ago. Its first products were crude papers made basically from straw. It grew slowly for over thirty years, changing to the manufacture of papers made from wood pulp, and so extended its operations into, or at least into contact with, the timber logging function.

15,000 Employees in 37 Plants

SOMETHING over twenty years ago, it went through a period of rapid growth, described as a "migration" from some of the exhausted timber areas of the Northeast. With the rise of the rayon and cellophane industries came the adaptation of West Coast woods to the manufacture of bleached sulphite pulps for these purposes as well as for finer papers. This resulted in a growth of well over fifty per cent between 1927 and 1932, almost entirely composed of pulp mills.

The primary industry today includes some thirty-seven plants, located from Bellingham, Washington to Southgate, California, an area fifteen hundred miles long. These mills together employ over 15,000 workers, in units from 100 to 1800.

The industry in its national aspects employs 160,000 people in primary manufacture. The timber supply in certain North-Central States is still abundant, although exhausted farther East.

The industry uses one distinct class of skilled craftsmen, paper makers, who operate the actual paper-making machines and auxiliary equipment. Until recent years this skill was acquired only through many years of practice. Therefore, in the movements of the industry to new areas, the skilled paper makers have been largely recruited from the older manufacturing areas. Thus many of those now employed on the Pacific Coast had training in Eastern mills.

Union Started in Massachusetts in 1884

A UNION of these skilled men organized in the city of Holyoke, Massachusetts in 1884 as a purely local organization, nine years later receiving an international charter from the American Federation of Labor. In 1897 a new charter granted it jurisdiction over all workers in all branches of paper making. Since 1902 it has been known as the International Brotherhood of Paper Makers. But in 1906 a split took place, the leaders of the miscellaneous workers breaking away and forming the International Brotherhood of Pulp, Sulphite and Paper Mill Workers.

In 1909 an agreement between the two Internationals was made, the Pulp Workers group receiving its A. F. of L. international charter the same year. Since that time both Unions have necessarily cooperated closely, have clearly defined their respective jurisdictions, and together offer the advantages of a comprehensive industrial union to the employees in the entire mill, except when certain mechanics are represented by their own craft unions.

During the union boom of 1917 and 1918, there was some unionization in Pacific Coast mills, culminating in unsuccessful strikes and the collapse of the unions.

In 1933 the industry on the Pacific Coast was definitely non-union. The news-print paper section of the industry in the Eastern states and Canada was largely unionized. The rest of the industry was almost completely non-union.

Union Comes on Wings of Blue Eagle

CAME the dawn"—on the wings of the Blue Eagle. Organizers arrived on the Coast, met a fair but not hysterical response from the workers, and little or no opposition from employers. By the beginning of 1934 unions had been formed in over a dozen mills, probably representing a minority membership in most cases. The organizers had frankly made themselves known to the heads of the employing companies. Preliminary discussions led to an understanding that a meeting to negotiate would be a joint one between delegates from each Local and a representative of each manufacturer.

Certain proceedings at this first conference become important items in the subsequent history of the relationship. The employers were frankly amateurs. The union delegates were mostly inexperienced although a considerable number of them had been members of the Paper Makers Union "back East", and others had been members of mechanic craft unions. They had the valuable guidance of the

two International Presidents. After many hours of general sessions, small negotiating committees representing each side went into executive session. Each committee at intervals reported to a caucus of its full delegation. Eventually agreement was reached after a long and reportedly difficult debate particularly in the employee, caucuses.

Difficulties of Delegates

IN THE preliminary session the employers had insisted on a poll of the delegates to record the fact that each delegation was fully empowered to act for its Local. The agreement finally reached was a Pacific Coast industry wide uniform master contract, separately signed by each mill and the Locals representing its employees, and also by the two International Presidents.

I have mentioned that the first negotiating committee for the employees seemed to have difficulty in convincing the rest of the delegates that they had gotten all the concessions they could in the closed negotiating sessions. When the delegates went home to their respective Locals, the task must have been still harder. No doubt during the organizing days there had been many hopes, and some promises, of a magic millenium. When this was not found in the contract the delegates who had signed it were accused of failure, or worse. In 1935 all the delegates wanted to sit in on the entire negotiations, at least to listen. A few were admitted as observers. Some delegates that year came with their hands tied by their Locals. They were empowered to sign only if they got certain results. Negotiations were halted until their Locals gave them unhampered authority.

The Gold Fish Bowl

IN 1936, the employers reluctantly consented to what we called "the gold fish bowl". The negotiating committees worked in a small amphitheater, with an audience consisting of all the delegates and all the employers. The union representatives gave assurance that their audience of 125 delegates would not participate in the negotiations, by interruption, applause, or communicating with the committee. A similar discipline was accepted by the employers. The results were excellent. Every delegate was aware of every step, every argument, of either committee. The employers consider "the gold fish bowl" a permanent tradition.

In 1937, there was a widespread unwillingness to empower the delegates to execute the agreement without referendum to the local membership. Obviously such a procedure destroys in part the equality of bargaining power. The employer representatives are principals and are, therefore, committed to an agreement as reached. The union representatives can give no assurance that any commitment made by them will be ratified by the members regardless of the corresponding concession already made by the employer.

So the 1937 agreement was submitted to the members. There was confusion

and misunderstanding and misrepresentation in a few localities. The decision was to be based on the total popular vote of the members of all Locals of the two Internationals combined. The verdict was 2½ to 1 for ratification. Although several Locals had voted to reject, all eventually abided by the commitment to majority rule, and executed the agreement. The contract was extended without a conference in 1938.

It must be borne in mind that 15,000 workers send 125 delegates to represent them, and that eight of them do the actual bargaining. The desire to pass upon the actions of these eight is not unnatural. It remains to be seen whether such absolute democracy can adapt itself, through representative action, to the needs of so large and diverse an industry and area. It may be significant that in the unfavorable conditions of 1938, the rank-and-file membership permitted its elected representatives to reach a decision against re-opening the agreement.

Long Range Advantages

BEFORE leaving the subject of the negotiation machinery, may I give some personal observations of its advantages and its problems.

First, from the view of the employee, there is an opportunity for experience in practical democracy. The convention of all the delegates, the selection of bargaining representatives, the man-to-man contact with employer-principals, the open conduct of all the negotiations, have obvious value.

From the employer viewpoint there are similar advantages. The necessity of cooperation between competitors, in a field where the law not only permits but encourages cooperation, has had good results. The initial concept that this was a job for principals might have been missed if the job had not been magnified and dignified by the very fact of its group nature. This concept has undoubtedly led to more uniformly responsible development of company policies than could be expected from separate handling of the basic negotiations.

To both employer and employee, there are long-range advantages in the uniformity of wages, hours, working conditions and adjustment machinery in a large industry area.

Blending Democracy and Efficiency

IN THE nature of problems, I have suggested that the extent of the numbers and area involved create difficulties for the unions. Essentially democratic in spirit, the two Brotherhoods are having to find means for blending their democracy with something close to the efficiency and flexibility of decision which goes with the dictator-type union.

The machinery of actual negotiation I have described at some length. The permanent organization can be reviewed briefly.

The employers met as a group of principals practically for the first time when

the original group gathered for the first joint negotiations with the two unions. They selected a committee to negotiate for them all. Its size was in effect determined by that of the committee earlier selected to represent the unions.

After the negotiations were completed, the employers met again and formed a loose permanent organization, the Pacific Coast Association of Pulp and Paper Manufacturers. Its principal function was to act as a clearing house for problems arising from the new union relationship. Here again the previous formation of an association of the Local Unions supplied the pattern.

Permanent Classification Committee

THE Manufacturers Association meets about once a year to carry on the contract negotiations. An Executive Committee exercises nominal powers during the interim. A Permanent Classification Committee renders some statistical service, advises as to technical compliance with wage provisions, and renders interpretations of disputed sections of the Union Agreement for the employers; this last named function I shall discuss later. Neither the Association or its committees have actual power. Their existence and influence depend upon voluntary acceptance and co-operation of the employer members which is complete enough to meet any desired standard.

Besides their charter relationship to the respective International Brotherhoods, the Local Unions also maintain, at a small cost, the Pacific Coast Association of Pulp and Paper Mill Employees. The evolution of its structure has been interesting, tending at the same time toward both democracy and efficiency. Without reviewing the evolution it is now practically a federation of four "councils". One is constituted of delegates from all Locals of the Brotherhood of Paper Makers which are parties to the Uniform Labor Agreement. The other three are constituted of delegates from all Locals of the Brotherhood of Pulp, Sulphite and Paper Mill Workers, in Washington, Oregon and California respectively. An Executive Committee representing all four councils is the nominal governing body.

Each council plans to meet quarterly, the Executive Committee less frequently. The Annual Convention normally precedes the contract negotiations. It consists of delegates from all Locals of both Brotherhoods. It adopts a program for the negotiations and selects and instructs the negotiators, who also have the services of the paid international officers.

Separate Agreement for Joint Relations Board

A SEPARATE agreement, distinct from the Uniform Labor Agreement, forms the constitution of a Joint Relations Board, in effect a supreme court for arbitration of disputes arising under the Labor Agreement. This body is composed of four Union and four employer representatives. A decision requires concurrence of three

from each group. Failing to reach such a decision, procedure is set up for adding an impartial member. The Joint Relations Board has met twice in five years and has decided three cases, always by unanimous vote, thus avoiding any recourse to the "impartial member" plan. Even in its arbitrations, the industry has democratically handled its own affairs without outside help.

Immediately after the first Agreement was signed, a temporary Joint Classification Committee was created. It performs the task of harmonizing specific comparable wage rates in the several mills, the Agreement itself dealing only with base rates and straight-line adjustments. The elimination of discrepancies between rates for comparable jobs in different mills has proved to be a valuable service.

As mentioned above, the employers have set up a committee, actually two members, which they call the Permanent Classification Committee. I shall review only one of its activities, and that only because of its significance in the evolution of this industry-wide relationship between employers and unions. May I point out that when I say "industry wide," I mean within the Pacific Coast area.

Advisory Interpretations for Both Parties

THE function of supplying uniform advisory interpretations to all member mills was perhaps suggested by experience under the N. R. A. codes. For a year these interpretations were sent confidentially to employers only. Then at an annual negotiating conference, the unions asked if the employers would permit the Union International Officers to have copies of the interpretations. The request was granted not only as to future interpretations, but as to all those previously issued. By gradual informal steps, the interpretations are now supplied to these International Officers and representatives with the privilege of sending them on to all the Locals.

The interpretations do not supplant the official adjustment and arbitration machinery. They have served to relieve many situations which might otherwise have gone to arbitration. In a majority of cases of real dispute, the interpretations have leaned toward the position taken by the union.

Two Challenges Go to Joint Relations Board

THE International Officers have been invited to point out to the Classification Committee any interpretations with which they disagree, and to support their opinion. Only two interpretations have been so challenged. In one case the union representative made a convincing point and the committee modified the interpretation. In the other, the committee maintained its original opinion. The Local Union concerned remained unconvinced and carried the dispute to the Joint Relations Board. The Board decided unanimously for the same interpretation as made by the Classification Committee.

I draw your attention now to the sequence of changes in certain provisions of

the Agreement because of their reflection of the evolution of the entire relationship. It is significant that Section 1, the statement of general purpose and mutual responsibility, has remained unchanged.

SECTION 1. GENERAL PURPOSE OF AGREEMENT

The general purpose of this Agreement is, in the mutual interest of the employer and employee, to provide for the operation of the plant (or plants) hereinafter mentioned under methods which will further, to the fullest extent possible, the safety of the employees, economy of operation, quality and quantity of output, cleanliness of plant and protection of property. It is recognized by this Agreement to be the duty of the Company and the employees to cooperate fully, individually and collectively, for the advancement of said conditions.

If you will glance at Section 2 below you will find it quite lengthy. In the first agreement it read as follows:

"The Company recognizes the International Brotherhood of Paper Makers and the International Brotherhood of Pulp, Sulphite and Paper Mill Workers as agencies representing their respective memberships for the purpose of collective bargaining as provided in Section 7A of the National Industrial Recovery Act".

In 1933, 1936 and 1937 it was progressively amended to its present form—a form which would have been unacceptable to the employers, unworkable for everyone, in the first year or two.

SECTION 2. RECOGNITION

The Signatory Company recognizes the INTERNATIONAL BROTHERHOOD OF PAPER MAKERS and the INTERNATIONAL BROTHERHOOD OF PULP SULPHITE AND PAPER MILL WORKERS as the agencies representing their respective memberships for the purpose of collective bargaining.

Any employee who is now a member in good standing, or who after this date becomes or is reinstated as a member, of either of the Signatory Unions shall, as a condition of continued employment, maintain such membership in good standing. The Signatory Company through its local management will cooperate with the local Signatory Union in every proper and lawful way to assist in obtaining and retaining members. No employee shall be subjected to any penalties against his application for membership or reinstatement.

If any employee claims to have been unjustly suspended, expelled or excluded from either of the Signatory Unions and has appealed the action of the Union to the President of the International Brotherhood concerned within five (5) days after having received notice of such action, he may at the same time file with the local mill manager a copy of his appeal, in which case he shall be eligible for continued employment until final action by the President of the International Brotherhood concerned. When and if such appeal is filed it shall be the duty of the local Signatory Union concerned to deliver to the local mill manager a copy of its record of the case which shall contain all essential information as to the charges against such employee, and the

evidence in support of such charges and the findings. The President of the International Brotherhood concerned shall not make a finding on any such appeal earlier than fifteen (15) days after the date on which copy of such appeal was delivered to the local mill manager and shall give consideration to any brief that may be filed by the said local mill manager prior to issuance of such findings and shall furnish the said local mill manager with a copy of said findings which shall include comment on any brief filed by the local mill manager. It is agreed that the authority of the President of the International Brotherhood concerned is final as to any such appeal.

Will you refer now to Section 17, "Causes for Immediate Discharge." The list of items is substantially as it was originally proposed by the Union representatives. The italicized paragraph is of particular interest.

SECTION 17. CAUSES FOR IMMEDIATE DISCHARGE

Bringing intoxicants into or consuming intoxicants in the mill or on mill premises.

Reporting for duty under influence of liquor.

Disobedience.

Smoking while on duty or in prohibited areas.

Deliberate destruction or removal of Company's or another employee's property.

Neglect of duty.

Refusal to comply with Company rules; provided that such rules shall be posted in a conspicuous place where they may be read by all employees and further that no changes in present rules or no additional rules shall be made that are inconsistent with this Agreement; and further provided, that any existing or new rules or changes in rules may be the subject of discussion between the Standing Committee and the local mill Manager, and in case of disagreement, the procedure for other grievances shall apply.

Disorderly conduct.

Dishonesty.

Sleeping on duty.

Giving or taking a bribe of any nature, as an inducement to obtaining work or retaining a position.

Reading of books, magazines, or newspapers while on duty, except where required in line of duty.

Failure to report for duty without bona fide reasons.

In the first agreement this item read "refusal to comply with company rules." It remained unchanged in the second agreement. In the third agreement, the wording which appears above was added, with the exception of the last two lines, following the words "the local mill manager." The 1936 version concluded with the words "but the decision of the company shall be final."

In 1937 the present wording was adopted. The effect of this is extremely broad. It means that the employing mill and company have actually agreed to submit to the established arbitration tribunal their previously sacred right to make rules for the government of the mill or plant, to the extent of determining whether such rules are consistent with the Uniform Labor Agreement.

No Dispute Over Rules

OTHERS such a concession would not have been considered earlier in the relationship. The most significant fact of all, however, is that in nearly two years of operation under the present clause, no single dispute over a company rule has arisen from any one of the 34 mills.

Today relationships under this agreement is generally satisfactory. Through five years of turmoil and confusion at the door-step of the industry, not one day's interruption of work has come to a single mill under this Agreement because of a dispute between that mill and its employees. There have been interruptions due to outside causes—transportation strikes especially. The dangers to this set-up in the future lie outside—the danger, for instance, of outsiders or outside unions injecting jurisdictional disputes into a structure which deals adequately with wages, hours and working conditions.

Collective Planning Anticipated

WITH the present degree of self-representation the employees in this industry will obtain greater cooperation from their employers. Already there have been cooperative undertakings outside the Agreement which have been highly important. Perhaps the most important has been the cooperative development of a method of job analysis and job appraisal which seems to many of us equal to the best accomplishment of this kind in American industry.

Excluding outside interference or influences which we cannot now see, it is my personal opinion that this relationship, five years, ten years from now, will no longer be concerned with "collective bargaining"; no longer be conducted on the assumption of conflicting interests which must be compromised through negotiation. I expect to hear the representatives at the annual conference referring to themselves as no longer engaged in "collective bargaining," but as engaged in "collective planning." And Section 1 of the Agreement is an adequate platform for that relationship.

Presented at the annual General National Industrial Relations Conference, 1939.

Many Personnel Men are Saddled with a Perpetual Job of Tinkering and Patching to Try to Fit People into Smooth Relationships with Other Human Beings and to Their Jobs. How Can We Avoid this, and Go on to More Useful Work?

Hiring *for* Better Labor Relations

BY GUY W. WADSWORTH, JR.

Southern Counties Gas Co.,
Los Angeles, Cal

ONE element in the recent experience of employers has been exceedingly difficult for them to handle. That is the bitterness toward the boss of the employee who has just barely made the grade on the job. He grieves, through his union, over "years of faithful service" which have gone without suitable reward.

Supervisors who have accepted mediocre performance because they "hate to fire a man," smart under his sorry return for their tolerance. It now develops that if you have kept a man on the payroll for fifteen years, you cannot suddenly decide that he has been "no good" all along, and fire him forthwith.

Seniority Perpetuates Errors

SERVICE which the firm has accepted and paid for, even when not fully satisfactory, supplies seniority which cannot be disregarded. The original error which placed a square peg in a round hole must, in most instances, be perpetuated.

The act of hiring a man carries with it the presumption that he will stay with the firm. Sooner or later his ability to perform his work, and to get along in the group in which he works, will become matters of first importance. From this viewpoint, the ends of good labor relations as well as of good business may be well served by the best job of placement of which industry is capable.

Assuming that past mistakes represent water over the dam, what can be done to prevent future repetition?

The first striking feature of any study of present day hiring techniques is the paucity of recorded data specifically covering the results obtained under different methods. Lacking these, industry accepts rather general reports on the personnel situation as indicative of success in hiring.

The fact that few firms keep comprehensive records no doubt explains the prevalence of many beliefs which spring up and flourish unchallenged in the employment field. There are numerous ideas, for example, with respect to pre-employment requirements of which almost any supervisor will unburden himself with moderate encouragement.

Take the question of how much education, or how much experience should be required in hiring applicants for given work. Almost any supervisor will tell you something if you ask his opinion on either point. Yet, barring answers related to fairly well organized crafts or professions, you can almost always win small money on the bet that the supervisor does not know whether the requirement, as he states it, is typical of either the education or the experience of the successful workers with whom he deals every day.

Calling the Shot

PERHAPS we should definitely locate the function of calling the shot on success or failure in hiring where it belongs. Supervisors who are charged with responsibility for results on the job appear logically situated to perform this function. The issue should not be left entirely to the most immediate supervisor, as he may be merely protective or too close to the picture to draw any real comparisons.

A balanced view on the success or failure of a hiring can be drawn from the views of several supervisors, where they are properly impressed with the necessity for careful observation, and for stating the case exactly as they see it. Results can be reduced to a count which readily shows the proportion of success and failure. Once we can measure results with some assurance, the appraisal and improvement of our hiring techniques can be objectively undertaken.

The employment method in most widespread use is the personal interview. Two types of hiring interview may be described briefly. The first is a general "sizing up" process, in which the interviewer relies chiefly upon his own (innate or acquired) ability to judge men. Second, there is the so-called objective interview, in which the purpose is to question the applicant on a limited number of points believed to be criteria of fitness for the job. In the first case, the interviewer more or less frankly relies upon his personal impressions. Under the second approach, the interviewer tries to rule out his personal impressions, and to consider the applicant solely in terms of standards.

No Judging Ability

THE classic experiment on the validity of the personal interview was performed by Hollingworth of Columbia University. He prevailed upon a group of executives, who were experienced in hiring men, to review some sixty candidates applying for the same job. He asked these executives to interview the applicants and then list them in order of their relative desirability for the position.

Hollingworth's thesis was, that if there is such a thing as innate or acquired ability to judge men, then people who presumably possess that ability should reach fairly common agreement when reviewing the same group of candidates.

Actually, one fellow received first, second, fifty-third and fifty-seventh places in order of desirability from various interviewers. The applicant who was given the best average standing was ranked all the way from second to thirty-sixth places. The two applicants who received the worst rankings ranged from sixth to fifty-fifth places.

Instead of narrowing the field down to a few logical choices, the confusion of choices increased with the number of interviewers. The names of the applicants could have been placed in a hat and thrown downstairs, with the statistical chances as good that the name landing on the highest step would prove to be the common choice, as any other.

Numerous researches of like nature and outcome could be cited if time should permit. The chief importance to our discussion is the great reliance upon physical signs and features, mannerisms, voice, etc. which unquestionably figures in the selection of employees by the personal interview method.

Following a review of these facts, however, someone usually asks: "But don't you *really* believe that *some* people are rather specially good at sizing up other people?" We can only answer that it is not a question of what we *believe*. Where anyone appears to have an unusual record of success with the so-called "sizing up" process, we should resort to payroll records and scan the list of all selections he has made from a cold start. By this simple expedient, particularly when the success or failure of each selection is left up to supervisors who were not party to the choice, we can determine the exact basis for any claim to excellence. In the process we may turn up a few surprises.

Examination techniques, including psychological testing, have been used in both public and private employment. This approach is worthy of investigation because those who use it are inclined to count cases, and to record their findings.

Trade Tests Discussed

Two general types of testing are in current use. The most common is the Trade Test, or so-called "Practical Test." Its object is to test the applicant in the clerical or mechanical operations called for on the job. This has a logical appeal, but there is no very convincing evidence that trade tests, by themselves, operate to assure good selections. There are a number of reasons why the best service a trade test can offer is essentially a limited one.

Consisting usually of questions drawn directly from the trade or occupation, a premium is automatically placed upon experience, often to the neglect of potential ability. The showing in trade tests may accurately reflect the relative abilities of applicants as they stand on the day the test is taken.

It has been a common finding, however, that while those who make the top scores in a trade test, outshine their competitors in the early course of employment, their superiority does not necessarily continue. As those who made lower grades gain experience, differences in actual performance on the job tend to level off.

If the business is situated at all times to bid for the highest of journeyman skill, a valid trade test is of some assistance in selection. They are of less value in industries which train their own workers from scratch.

Only 8% Discharges for Inability

THE chief weakness of trade and practical tests is that long term success or failure on the job is determined not only by occupational skill. In investigating over four hundred discharges for cause in one large firm, it was found that failure in clerical, technical or mechanical operations figured in less than 8% of the cases. Even in the discharges where failure in the work was a factor, it was seldom a lack of the basic skill presumably sampled in the trade tests. Failure to use the skill which the employee actually possessed was the more frequent cause.

Labor relations, as a whole, have little to do with the skill of the American workman. We must identify and place that skill where it belongs, but in the main, our problem is to develop an harmonious and mutually profitable long term relationship. We cannot begin and end our thinking on the task of selection with the issue of whether or not a man can drive a straight nail while we are watching him.

Psychological testing, which is admittedly less common than trade testing, deals primarily with the mental and temperamental adjustment of the worker to his job. The basic assumption is that if the workers who succeed in given occupations possess certain characteristics which can be measured, then if we limit our hirings to applicants who have the same characteristics by measurement, we will increase the proportion of success in hiring. Stated otherwise, the procedure is to measure employees of known success, and then try to find applicants who are like the employees who make good.

This sounds a bit more simple than it really is. Actually, it is almost impossible even to discuss the subject of testing without running head on into opinions and prejudices, which, although not often based upon direct personal experience, are nonetheless emphatic. As Laird has stated, many people think that psychological testing means asking "if Mozart was a violin player or a race horse; if a revenue cutter is used on a milling machine or a lathe; or if Anatole France is a summer resort, a state, or a man."

Six Companies with Comprehensive Programs

ACTUALLY, there are about six comprehensive commercial testing programs in the United States, in which psychological tests have been used long enough, and in which results have been followed consistently enough, to gain any idea of what

these tests will do. In addition, eighteen fairly large firms use one or more psychological tests, with partial reliance upon results.

While the total group is numerically small, it includes firms of consequence such as Scovill Manufacturing Company, The Pennsylvania Company, Philadelphia Electric, Proctor and Gamble, branches of General Electric, Atlantic Refining, Eastman Kodak, Macy's, and so on. It is significant that these firms, after carefully observed periods of trial, are not only maintaining, but extending the use of testing in their personnel programs.

It may also come as a surprise that some of the best and most consistent results with psychological testing in industry have been achieved with so-called intelligence tests. Where mental ability or intelligence test standing of employees already on the payroll has been compared with success on the job in any substantial number of cases, several important relationships have been discovered which may profitably be observed in hiring new employees.

The first and most common finding in testing a working force is that there are rather striking similarities in the mental ability scores of employees engaged in the same line of work. In a number of occupations, scores are so closely clustered as to indicate both high and low limits in the range of selection. Direct study of employees on the job thus suggests that some factor, analogous to water seeking its level, so operates that people tend to gravitate toward lines of work to which they are intellectually suited.

This is further illustrated by studying cases of employees who have been tried first in one line of work, and then another, until they have finally hit their stride in some given job. Oftener than not, this drift has been in accordance with the employee's mental ability. This expensive process could be cut short if we had a measurement in the first instance.

Job Intelligence Levels

THERE is, of course, nothing new in the study of occupational intelligence levels. We need not only a fairly accurate measure of mental ability, but must know how much or how little intelligence is typical of the worker who succeeds in the given job.

All too often, it is assumed that the "higher the score, the better the applicant." As a result, totally unsuitable people are placed on the job, and, of course, do not work out well. Unless there are standards developed within the immediate Company, or drawn from comparable industries, intelligence tests may offer merely a new way to commit old blunders.

A second basic relationship is observed in comparing the employee's mental ability test standing with his standing on the job. Having discovered that we can define test scores for various occupations, what scores are most significant within the ranges so delimited? Are applicants who score high within a favorable range likely to work out any better on the job than those who make average, or low scores?

Tests Jibe with Ratings

AN ESSAY TO these questions was developed by having supervisors, who knew nothing of test results, rank their men in "general value" order in small groups. The ranking of the same employees in test scores was then compared with supervisors' estimates of value in 733 cases. In 63% of the cases, "score rank" and "value rank" were identical. In 20% more, comparisons differed by not more than one rank, i.e., instead of "number three in score rank" being ranked as "number three in value," the value rank would be "number four."

While agreement was not complete, there were two significant indications. One was that supervisors, who knew nothing of test results, recognized much the same differences in the ability of workers as were indicated by their intelligence test scores. The other finding was that within the acceptable range, the better workers were generally those with the higher scores. Exceptions were almost invariably in ultra high or ultra low score cases, on the fringe of the common range for the occupation.

The third significant relationship noted in the use of mental ability tests is a sharp distinction between the scores of the "most successful" and "least successful" employees. Supervisors have been required, in returning individual ratings, to distinguish the "superior employee" from those who were not making good in several thousand cases. The scores of the highly successful workers were then compared with those made by the unsuccessful group. Not only were there differences between the scores of the two groups, but the probable success in hiring at any given point in the total score range could be predicted.

Where curves representing distributions of scores in these groups intersected, it was graphically apparent that applicants who had scored above this critical point had furnished 70 to 80% of the Company's successful hiring experience. Conversely, those who scored below the point of intersection were the most frequent failures. Stated in chances, these studies enabled us to identify the portion of the score range in which chances of success in hiring were 4 out of 5. Hiring below the critical point, we could expect success in only 1 hiring in 5.

90% Success in Hiring with Tests

OBSERVANCE of these relationships and findings over an 8 year period, in one company with over 1,000 employees, has produced the following results: The proportion of applicants who prove to be highly successful on the job has increased by 50% over results formerly achieved without tests. The proportion of unsuccessful hirings has been reduced five-sixths by comparison with non-test methods.

Applied to the problem of ruling out the applicant who will not fit the job, repeated check-ups through rating procedure, where the supervisors call the shot on success or failure from year to year, show that less than one applicant hired by test in 10 fails to work out on the job. Exact percentages of unsuccessful hiring

from 1934 through 1937, as indicated by ratings were: 1934, 5.5%; 1935, 9.2%; 1936, 6.2% and 1937, 8.6%. In short, results of test hiring, as determined by supervisor ratings of the employees so selected from year to year, remain relatively consistent.

What Tests Measure Is Unknown

WE OBSERVE and accept the service performed by intelligence tests without attempting to explain. We do not know just what they measure. We agree that they "do not look like they would do the job." The fact, however, as has been stated by a Personnel Manager in an important eastern firm, is that: "A twenty minute test is furnishing distinctions for us which heretofore were discovered only through the painful process of hiring and weeding out, sometimes over a two or three year period."

In passing, one general feature of mental ability tests deserves brief mention. So far as we can determine, they do not penalize lack of schooling. Properly devised, an occupational intelligence standard is based upon the mental ability of the men on the job, just as we find it. If the mental level represented in a given line of work is below the average of the general population, then the standard for hiring should be correspondingly below average. There are places within industry for practically every mental level which can be measured. The use of testing enables us to avoid the mistake of placing workers way below, or way above an appropriate level.

Testing for Compatibility

MEASUREMENT of personality or temperament is of interest because success so frequently depends upon adjustment of the worker to fellow employees, and to the working environment, rather than strictly upon technical skill. When supervisors are permitted to analyze success or failure in their own words, their most frequent comment has to do with the worker's habits, attitudes, cooperativeness (or lack of it), and disposition to perform up to his capabilities. There is considerable evidence that successful adjustment to a job calls into play much of the same abilities as those which enable an individual to adjust to a social situation of any kind.

But a working relationship, in which employees rub noses daily under force of economic necessity, logically requires fundamental compatibility far beyond that needed in casual social contacts, which we can take or let alone. People do not "settle their differences off the job." They merely endure them until some pent up resentment gets out of hand. Then we have a "labor problem."

To meet this situation just as we have been quick to accept systems for sizing up people, some of us jump at methods of changing and improving personality. Actually, the scientific study of human behavior has gone little beyond the painstaking identification of a few characteristics, and efforts to describe their effect upon our conduct.

Finding Well-Balanced Workers

IN ITS present state of development, personality or temperamental measurement can determine the presence or absence of certain traits which operate in groups, and which are important to job success. First, there is a group of traits associated with self-control, rational balance, durability of mind, and conservatism, which enables us to maintain our impulses and reactions within normal limits. This braking power, or control mechanism spells the difference between acceptable and unacceptable behavior in many situations.

Without reasonable self-restraint, an individual's temper runs wild, his hatreds are given free play, his egotism knows no bounds. We say of such people that they "lose their heads," "blow up in a crisis," or that they "can't think straight about anything in which they figure personally." Fortunately, current temperamental measurement can identify the individual who is adequately equipped to hold his impulses in check as well as those who are not well endowed in this regard. In less elegant terms, we can identify the probable "hot heads," often the "sore heads," and sometimes the potential "swell heads." Essentially, we are merely assuring ourselves that the man who enters our employ can adjust himself to the average working situation without fuss or fury.

Those Who Ride on Efforts of Others

ANOTHER important group of traits is associated with the so-called instinct of self-preservation. All of us are selfish, and inclined to serve our own interests to some degree. Certain individuals, more than others, will not move out of their tracks, until they see what they are "going to get out of it." People whose self-concern gets out of bounds achieve their own purposes at the expense of the other fellow, or of society in general, if need be. They are willing to ride on the efforts of fellow workers. In some instances, they become antisocial, and lacking in compunction. On the job, supervisors say that they "look for the easy things to do," complain that they "hang back," and merely do enough to "get by." Sometimes, antisocial characteristics are carried to the point of cheating, lying, wheedling, scheming and malingering.

The fundamental difficulty is that the ethical sensibilities, and the sense of social responsibility which is normal to mature human beings, have remained undeveloped. There is trouble waiting for any group which includes individuals in whom these traits predominate. They do not fit into organizations where reasonable willingness to work is an essential.

Emotional Ups and Downs

A THIRD group of traits which can be measured has to do with the emotions, and particularly with the "highs" and "lows" experienced when people react to

situations, and to other people, as they happen to feel at the moment. Where emotionality is marked, the individual tends to be either "shouting to Heaven," or "grieved to death." They are about to "take the town by storm," or "all is lost save honor."

Among salesmen, these characteristics elicit the comment that "he goes great guns when he's hot, but you have to light a fire under him every Thursday." In ordinary occupations, the hyper-emotional individual only does his best work when he "feels right." All of us are emotional to some degree, but extremes of emotional fervor, whether of elation or depression, merely illustrate the old adage that "what goes up must come down." Temperamental measurement enables us to identify the individuals in whom wide variations in the emotional set may be expected. They are likely to be a total loss in the slow, plodding, methodical occupations. A person moderately endowed with emotionality is an asset in meeting the public, because most of them like people. Their friendliness is an asset to the employer. Their extremes of excitability, and pressure of activity are the chief drawback.

Those Who Do Not Mix Well

Two groups of introvert traits of opposite character can be measured. One is noted in the shy, retiring and bashful individual who is "all right if you know him," but who is very hard to know. Such individuals tend to suspect others of not thinking well of them, look for social rebuffs, and feel pitifully inadequate in dealings which involve getting along with other people. They personalize experience, indicating beliefs such as: "God sent the rain to spoil my new hat," or "I will not go to see my school play football, because they always lose when I attend the game," (and believe it, mind you).

They succeed in such work as inspectorships, or other individual undertakings. They are steady going, and able to concentrate effectively. Temperamental measurement enables us to identify them, and to keep them out of assignments in conflict with their fundamental make-up.

The other type of introvert is the person who, on the basis of arrogance, conceit and contempt for the opinions of others, sets himself apart from his fellows, feeling that the average person is neither interesting nor worthwhile. Such individuals are often intolerant, and argue "at the drop of a hat."

They are of value in any line of work calling for persistence and constancy of purpose, even when their job is not a popular one. They are the crusaders, campaigners and avowed friends of the under-dog. Often convincing in their oratory, the pay-off comes when there is close examination of the personal and human side of their partisanship. In many instances, they have no use for the people for whom they argue, but only in the rhetorical possibilities offered by a "cause." Their chief value lies in ability to take sides, and to hold on, long after the average person would quit.

To Avoid Tinkering and Patching

THE thumbtack search is limited to the more outstanding and extreme variations disclosed in the study of temperamental behavior. We have attempted no schematic presentation, but have merely tried briefly to indicate the character of problems which can be avoided, or solved in part, through use of temperament tests.

The case has been well stated by one personnel authority, as follows: "When one comes down to basic causes, most problems of disturbed employee relations . . . are due to hiring the wrong employee. . . . Most personnel men find themselves saddled with a perpetual job of tinkering and patching, to try to fit human beings into relationships to other human beings and to their jobs, when many of the people right from the beginning were lacking in the necessary capacities to do the jobs properly, and in many cases had temperamental kinks, emotional instabilities, conceits, egotisms and persecution complexes which make any rational human relationships to boss and fellow worker impossible."

One hardly needs to belabor the point that the man who is unsuccessful in his job is a source of acrimony and disharmony. His effect on the working group may be similar to that of one spoiled apple in a barrel. There is no sleight of hand performance which can better a relationship which is unsound from the outset. Improvement of selection techniques is the only apparent route to avoidance of those situations in which employers and employees must, on occasion, eat crow and like it.

Being a paper presented at the Second Annual Stanford Industrial Relations Conference, 1934.

Those wishing to study in more detail the personality tests mentioned are referred to the paper "Theory and Practice of Temperament Testing," by Mary Elizabeth Hemsath, in the May 1935 issue of the PERSONNEL JOURNAL.

If you have a copy of any of the following back issues of the Personnel Journal, which you no longer need, will you kindly send it to us?

May 1933

June 1933

September 1933

These issues are out of stock and we have received many requests from companies wishing to refer to them and libraries wishing to keep their files complete.

The Personnel Research Federation is endeavoring to locate copies of these issues, and will pay the cost for copies returned to the Federation office at 6-130 42nd Street, New York, N. Y.

In Part I of this Paper There was Outlined Research on Merit System Forms, Announcements and Misunderstandings regarding Examinations, the Preparation of Examinations, and Analyses of the Results by Studies and Various Statistical Methods.

Merit System Research II

BY MAX FREYD

U. S. Social Security Board,
Washington, D. C.

RATINGS of education and experience, and to a certain extent, the determination of eligibility for examination, are deserving of study because of the element of subjectivity which enters into them. Among the matters which may be accomplished through studies, investigations, or analyses are: The preparation of manuals of instructions for persons who rate education and experience, the selection of competent persons to make these ratings, the preparation of lists of decisions on questionable matters so that all raters will be guided by the same standards, etc. As a test of the reliability of this system, comparisons might well be made of the judgments of given applications by several raters. The number of appeals from the decisions of raters will also be a criterion of the correctness of their judgments and may point the way to improvements in procedures.

Education and Experience

ANALYSIS may also indicate where improvements might be made in the future in wording announcements of examinations, especially those parts which refer to minimum qualifications for admittance to examination or the basis upon which education and experience will be rated. It may indicate where the rating of education and experience may be facilitated through the more accurate and understandable explanation of substitutions of education for experience and vice versa. The determination of what constitutes acceptable types of experience and education may require further research into the needs of the positions to be filled.

Some of the other problems involved in rating experience are: Should remote

experience be given the same credit as recent experience? Should long experience all with the same firm be given as much credit as an equivalent length of experience distributed among several firms? Is too much experience in a given field a negative rather than a positive influence?

Oral Examinations

THE preparation of oral examination forms, the selection of competent persons to administer oral examinations, the preparation of instructions for oral examiners, and the statistical treatment of the results of the examinations are all important fields of investigation.

Distribution tables may be made of the ratings given by each member of the examining board, and the central tendencies and measures of dispersion may be calculated. Analysis of these distribution tables will indicate the variation from the normal distribution curve. Any striking variations which are not explainable in terms of the character of the group of applicants may possibly be ascribed to inexperience or bias on the part of the rater, and such a rater should not be used again without further investigation and training if necessary. (The fault may be with the form itself if lack of normality shows up in the ratings of all examiners.)

If any one of the raters differs from the others by a wide margin in the central tendency of his ratings, it may be necessary to add a constant to each of his ratings (or subtract a constant) before averaging the ratings of all members of the board.

A measure of the reliability of the ratings may be obtained by intercorrelating the ratings of the various examiners. Each examiner's ratings may also be correlated with the total judgment of the board. Examiners who show a marked variation from the consensus of opinion deserve attention to determine whether or not extraneous factors enter into their ratings and whether or not they should be eliminated from consideration when selecting future examining boards.

Check Ratings of Oral Examiners

THE ratings of each examiner, as well as the average ratings, should be correlated with ratings on education and experience and with scores in the written examination, in order to determine whether or not the oral examination measures abilities or personality factors which are already accounted for in the other parts of the total examination.

Ratings by supervisors of persons appointed may be correlated with ratings made by oral examiners at the time of examination.

Ratings on the various factors in the rating form should be intercorrelated in order to determine the influence of halo, and to determine if a rating on a single general factor, such as suitability for the position, is a satisfactory substitute for ratings on a number of separate detailed factors.

Examination Statistics

STATISTICAL tables relating to each examination which has been held will be found useful when future examinations are scheduled, in deciding upon the number of copies of examinations to print, the number of proctors it will be necessary to hire, the space requirements, the number of persons that may be expected to pass the examination, etc. The following is a list of some figures that should be compiled regarding each examination:

Title of the examination.	failing oral examination.
Date held.	placed on register of eligibles.
Total number of applications mailed.	Number of personal investigations.
Total number of applications filled out and returned.	Number of candidates removed from register as a result of personal investigation.
Number of applications rejected for:	Number of candidates whose position on the register was changed as a result of personal investigation.
Non-residence	Number of candidates failing medical examination.
Age limits	Number of people already employed who took the examination.
Lack of minimum qualifications	Number of people already employed who were dropped because of failure in the examination.
Other reasons	Number of new employees taken from the eligible register to date.
Total number of applications accepted.	Total man-hours immediately concerned with the administration of the examination (including proctors, oral examiners, and other temporary employees).
Number of candidates; appearing for written examination.	Total salaries of the above personnel for the examination period.
failing to appear for written examination.	
withdrawing from written examination.	
failing written examination.	
passing written examination.	
scored on education and experience.	
notified to report for oral examination.	
appearing for oral examination.	
failing to report for oral examination.	
passing oral examination.	

Appeals and Correspondence

CORRESPONDENCE relating to the examinations should be reviewed, classified, and analyzed with regard to the problems which applicants raised, the dissatisfactions which they expressed, or the appeals which they entered. This should be done in order to discover what may be done to clarify or amend future examination procedures and practices in such manner as to reduce friction and ill feeling. A similar analysis may well be made of newspaper and public comment and criticisms of the merit system administration in order to determine where it is advisable to improve procedures or to do a better informative job.

Investigation of Eligibles

TABULATIONS of the results of investigations of statements submitted by applicants should reveal the types of information that are most often submitted in error or for the purpose of misrepresentation. The number and distribution of mis-

statements will indicate what action should be taken. It may be necessary to give greater emphasis on the application form to the requirement that absolute accuracy is essential, it may be necessary to mention on the application form certain definite penalties that may result from misstatements, or it may be necessary to require the applicant to swear to the form.

A tabulation of the results of character investigations of applicants may be useful in demonstrating the value of this phase of merit system procedure. It should indicate also what to expect in such investigations and the lines of inquiry to pursue.

The relative reliability of various sources of information on applicants is a worthwhile field of investigation. It may also be worth while to investigate the relative value of questionnaires as against personal letters.

Objections of appointing officers to eligibles who are certified may disclose faulty investigations or even weaknesses in the method of examining.

Efficiency Ratings

EFFICIENCY ratings are a fruitful field for research because of their importance in merit system and personnel administration. They form one basis for evaluating the merit system as a method of selection. They may be one basis for promotions, demotions, and order of dismissal in case of reduction of force. They may disclose specific needs for training.

Comparisons should be made between ratings by various supervisors and in various Bureaus and Divisions in order to provide for as much uniformity as possible in rating standards. If necessary, supervisors whose ratings are materially out of line with the standards of the entire agency should be required to make adjustments in their ratings in order to bring about some degree of uniformity throughout the agency.

If it is possible to secure objective measurements, such as production records, records of tardiness, etc., these should be correlated with corresponding factors on the rating form in order to determine, if possible, how accurately the ratings were made.

Ratings With Suspicious Look

RATINGS should also be correlated with such other miscellaneous factors as amount of previous training, nature of previous training, length of service, etc.

Ratings of employees of either sex by supervisors of the opposite sex should be investigated to see what favoritism or prejudice might have entered into the ratings.

Factors on the rating form should be intercorrelated in order to determine the influence of halo. A high intercorrelation between the factors on the form may indicate a tendency to rate without sufficient analysis of the employee's abilities. If, with further training, supervisors rate their employees in the same way and with the same halo, it may be necessary to throw out some of the factors on the form which show too close a statistical resemblance to other factors and thus are mere duplications.

Ratings which have a suspicious look should be studied in order to determine whether or not there is a personal feeling between the supervisor and his subordinates.

Conferences may be held with employees who are rated extremely low on some factor on the rating form, in order to determine the causes and possible remedies. Later ratings on the same employees may be studied to determine whether or not the proposed remedies have been effective. Ratings may also be studied to determine which employees should be considered for transfer or dismissal.

Efficiency ratings deserve study from the standpoint of the suitability of the particular rating form to the purposes for which it is intended. Although considerable work is involved it may be worth while to make a comparative study of various rating forms and their suitability for this particular use.

Analysis of the ratings may indicate need for further instruction of raters either through class instruction or through manuals.

Another point deserving of some investigation is the frequency with which ratings should be made.

Promotion, Transfer and Dismissal

ANALYSIS of promotions, transfers, and dismissals may throw light on the adequacy of the entire examination procedure. The background and examination scores of persons receiving numerous promotions may be studied to determine whether their superior abilities were brought out in the original examination leading to their appointment or might be brought out in subsequent examinations for like positions.

The factors involved in granting promotions may well be brought out through investigation. Instances may be found which require action to reduce favoritism. Comparisons between promotions on the one hand, and length of service, number of dependents, and efficiency ratings on the other hand, may serve to indicate some of the factors which entered into recommendations for promotions. Comparisons of the records of persons promoted and those not promoted may shed light on whether a true career service is in effect. Comparisons may also be made between classes or grades to determine whether comparable promotional possibilities exist in widely separated classes or salary levels.

Welfare of Employees

IF AN employee suggestion box is used, or if a union is active, a tabulation may be made of the most frequent causes of complaints, grievances, or instances of lack of morale. It may be advisable also to call in an impartial outside agency to question employees regarding attitudes in order that latent disruptive influences may be uncovered which employees are reluctant to voice to their own superiors. Such studies may very well lead to recommendations for the correction of conditions most disruptive of employee well-being.

Personnel Procedures, Forms, and Records

INVESTIGATION may very well be undertaken to determine whether the personnel forms are completed, routed, and the information used, in the manner intended when the forms were drawn up. Recommendations may result in the discontinuance of some forms and procedures which are superfluous, or the modification of forms which do not supply all the figures or other data required by the personnel office.

Vacations, Sick Leave and Overtime

STATISTICAL research on the record of leave taken will bring out facts regarding the amount of vacation leave to which employees are entitled compared with the amount which they have actually taken. Reasons for failure to take the leave to which employees are entitled may be brought out through personal contacts with a sample group of employees.

Sick leave also should be studied to determine the extent of such leave, the causes, and the working conditions which as contributory causes require improvement.

Records of overtime should be studied with a view to the reduction of excessive overtime through better working methods or through increases in personnel.

If a personnel punch card is used, a tremendous amount of information regarding employees may be prepared with little effort. One statistical study which may very well be undertaken is a tabulation of employee data, such as sex, age, education, city and county of residence, city of birth, military record, etc., with a view to determining what policy was consciously or otherwise used as a guide in the selection of employees from among those certified. It may indicate whether there has been a bias in certain selections which requires modification or control in the future.

Merit System Budgets

ANALYSIS of the operations of the merit system will indicate where additional expenditures are necessary and where savings may be effected. Itemized costs may be reviewed to determine whether or not expenditures have been inadequate or excessive for printed supplies, personal services, travel, etc. The entire costs of the merit system may well be compared with the tangible and intangible benefits of the entire program. Such a study should not neglect intangible factors, since so many of the benefits of a merit system, such as the effect upon the public and upon the morale of employees, are difficult or impossible to measure.

This is the second part of an important and comprehensive paper. The first part appeared in the May, 1939, Personnel Journal.

The ideas expressed herein are offered on the responsibility of the author; they do not necessarily reflect the personnel policies of the Social Security Board.

Grateful acknowledgment is made by the author for assistance received from Dr. L. J. O'Rourke, of the United States Civil Service Commission, and Dr. J. W. Hawthorne, of the United States Social Security Board.

Employing More than Ten Thousand Full-time Non-professional Workers, Y.M.C.A.'s are Vitrally Concerned with the Welfare of the Workers, the Large Payroll Item Involved, and the Maintenance of Standards and Working Conditions Appropriate to a Christian Agency.

Labor Policies of Y.M.C.A.

EXTRACTS FROM REPORT,
BY PERSONNEL SERVICES COMMITTEE,
NATIONAL COUNCIL OF Y.M.C.A.'s.

FROM both humanitarian and administrative standpoints, recent years have witnessed the necessity for greater attention to problems which arise when one person finds need to employ the services of another. This condition holds true with those organizations which function primarily along social, educational, and religious lines, as it does with those which engage in business and industrial activity for profit.

However complex the organizational condition, and however related to the pursuit of profit, there is need for clearly understood policies by which to administer working relationships in the mutual interest. It is important, though unfortunately all too rare, that such policies rest upon adequate factual study, kept up to date as needs and conditions change.

For the Young Men's Christian Associations, the study here presented represents an attempt to assemble such facts. It has been made possible by the hearty cooperation of more than two hundred local Associations. The project was authorized by both the Association of Secretaries and the National Council of Y.M.C.A.'s. This cooperation offers evidence of deep interest in the problems studied, and desire for improvement.

Basic Labor Policy

GROWING out of the findings of its sub-committee on Study of Compensations and Conditions of Work of Non-Professional Employees of the Y.M.C.A.'s., the Personnel Services Committee proposed the following recommendations, which were accepted in full by the National Board.

The National Board hereby accepts the report of the Committee on Study of Compensation and Conditions of Work of Non-Professional Employees of the Y.M.C.A.'s, as approved by the Personnel Services Committee.

The National Board in releasing this report to the local Associations, commends its study as an important insight into employment conditions, and commends whole-hearted application and experimentation where appropriate.

The National Board pending action by the National Council at its next meeting commends to local Associations for specific study the following as being the foundation of an adequate and equitable policy governing the employment of non-professional workers:

Wages, Home and Working Conditions

WAGES: Wage scale should be based upon the following: (1) local cost of living, (2) the actual rate prevailing for similar work, (3) any federal or state legislation that may exist, and (4) the current standards of organized labor. Among these criteria the first is considered the most essential.

Hours: The length of the working day and working week should be determined by reference to the best current practice, existing legislation, and the standards of organized labor. Overtime should be paid for at a rate determined by the same considerations. All employees should be entitled to one day's rest in seven and nationally recognized holidays, or equivalent time.

Vacations: Workers should be entitled to vacation with pay, at least after one year's service if not before. Two weeks are regarded as a desirable minimum.

Sick leave: Sick leave with pay, for limited periods, should be allowed to all regular employees after a year's service, if not before.

Security: Security against hazards of old age, unemployment, dismissal, sickness, accident and death should be provided as far as possible through existing provisions under Association auspices (assuming continued exclusion from Federal Social Security and related coverages.)

Employment: Jobs should be classified and, as far as possible, equated one to another on the basis of skills and knowledge required. Regular lines of promotion or increment periods should be established. All recruiting, retention and promotion should be administered on the basis of merit and efficiency without unfair discrimination on account of age, sex, race or marital status.

Representation: Procedures for locating, airing and promptly settling grievances and dissatisfaction are essential. Every employee should have the right to a hearing whenever requested either in his own behalf or through any representative or representatives of his choice.

Group Expression: Staff meetings should be encouraged, with a view to developing efficiency and pride in the job, increasing morale and self-respect, discussing mutual problems for mutual benefit, and sharing both opportunities and responsibilities.

Y.M.C.A. Should Lead Community

IT is the sense of the National Board:

That the Y.M.C.A. in view of its purposes and claims as a Christian agency, should not be content merely to "follow the market" in its labor policy, but should endeavor so to administer its personnel relationships as to merit a position of leadership toward the improvement of community personnel standards.

That it regard the field of employee policies as a significant test of its Christian purposes and claims.

That in submitting these standards for study or adoption by local Associations, the National Board proposes that the National Council adopt these objectives for its own practices and relations as an employer of non-professional workers.

Attention is especially directed to the Committee's contribution toward a Philosophy of Employment. These summary statements and proposals, drawn from the Committee's diligent reflection on the facts presented by the Associations themselves, are urgently commended to the local Associations as employers for careful study and specific application.

Philosophy of Employment

THE situation disclosed in the survey is not encouraging. Many Y.M.C.A.'s. here studied can scarcely be proud of the employment conditions now in effect for their non-secretarial staffs. The sample under consideration includes many of the country's more prominent Associations, as well as those located in communities of all sizes, and there is no reason to suppose it overstates the unfavorable aspects of the situation.

While actual comparison with community conditions is difficult and complicated by many factors, it can nevertheless be said that the Y.M.C.A. in this respect, falls well below the best standards set by business and industry.

But this is not entirely the Association's fault. Traditionally there has been a rather widespread popular assumption to the effect that workers in welfare organizations, in whatever category, somehow constitute a "devoted" group and can get along on far less money than other people. That assumption is not unheard of today; donors have been known to curtail or even withdraw contributions on hearing of a standard of living beyond their expectations.

It is also true that large numbers of the "less fit" workers, or those who could defend themselves least in the business world because of age, sex, race or physical appearance have been glad to work for educational institutions, the church, hospitals or other welfare agencies for whatever they could get.

That this may frequently still be the case in the Y.M.C.A. is suggested by the presence among the workers here studied, of substantial numbers of older men and women—45.5 per cent forty years of age or older and 8.6 per cent sixty years of age or older.

Limits Due to Budget

THE IS NOT TO SAY, OF COURSE, that Associations have been deliberately closing their eyes. Like most consumers with limited incomes, they have probably accepted what they found fairly uncritically, and have therefore been drifting in this respect with the tide of local conditions. The need for work especially of those with more or less impaired bargaining power has widely coincided very well with the Association's own need to make every precious dollar go as far as possible.

Such community pressure as the Association is exposed to, from contributors, Chests and the like, would in the nature of the case tend to reinforce this position. Perhaps it is only natural that the first definite challenge to the popular assumption (not always consciously formulated of course) about the living standards of religious and welfare workers has come from, and been exerted in behalf of the professional group.

Much has been done in the last ten or twenty years, by the Y.M.C.A.'s own employed officers' organization among similar agencies, to raise the dignity and standards of professional welfare work—including standards of security and compensation.

Nevertheless, on the basis of the data summarized in the preceding section, the indubitable fact remains that, consciously or not, some Y.M.C.A.s have laid themselves open to the charge of dealing unfairly with their employees. The same may be said, on the evidence of recent studies and information, in varying degree of Y.W.C.A.s, many hospitals and some of the leading colleges and universities of the country.

Even where relatively or distinctly favorable conditions obtain, it is usually found on investigation that the credit belongs to some community factor (often due to the relative strength of organized labor) rather than to any initiative within such an agency.

Many Institutions Now Studying Policies

THE last few years, on the other hand, have witnessed a growing uneasiness on the part of welfare organizations on this score. To some extent this is the natural, possibly the inevitable, continuation of the concern that first arose in connection with professional standards. To some extent it is also the product of our times, when serious business depressions, N.R.A. codes and aggressive labor unions have all served to bring employment procedures into the limelight.

The best evidence of this tendency among so-called eleemosynary institutions lies in the studies, often on a national scale, so many of them are making. One question leads to another and so, along with this uneasiness, there also seems to be emerging a tendency to wonder about the proper norms or criteria for evaluating the results of their studies and by which to develop recommendations.

Can those organizations which are normally regarded as the expression of the

culture's heart and conscience afford not to be up-to-date in all matters involving human relationships? Can they, indeed, afford not to be the standard-setting group in the community rather than "followers of the market," even granting they pick one of the better "markets" within any community to follow?

Social Agencies Behind Business

TO BE SURE, most of the churches, colleges, hospitals and other social agencies have a long way to go before they even catch up with the best business and industrial practice, let alone lead it. In a world where few concessions are made voluntarily, these organizations have been protected from the pressures of competition and organized labor, which have so largely moulded the current standards of the business world. But now that the question is being raised, in one quarter after another, it is not going to be easy to silence it.

The issue has become a moral as well as a practical one. But it is both. Sooner or later the same pressures that raised standards in the business world will register throughout the immediate community, and the national community as well. There is evidence that the process has begun already. These pressures inevitably register unevenly and not necessarily to the best interests of all concerned.

Are we to be satisfied with such gropings, haphazard as they so often are in their objectives and too often destructive in their methods? Can any agency like the Y.M.C.A. afford not to assume leadership, in this respect, and work towards goals consciously chosen in the light of its most sacred convictions?

Moreover, the question is not one simply of hours and wages. Modern personnel experts are fairly well agreed that considerations of self-respect and status are all but as important as the primary ones of compensation and security. Here the Y.M.C.A. is faced with a peculiar challenge to its functions as a character building agency. The non-secretarial staff is drawn from one element in the community that is normally regarded as regular Association constituency for program purposes.

How is it that nobody has hitherto thought of drawing them into clubs and classes in order to develop their initiative, increase their enjoyment of life or build up their self-assurance? Why do so few Associations think of holding study meetings with such employees, for instance, to enlarge their vision of their job and its place in the national movement? Could there not be national conferences for such members of the Association family similar to those for club boys or young men, if not, to those for the employed officers?

Problem of Democratic Management Involved

HOW BETTER could the Y.M.C.A. undertake to train for democracy and citizenship than by demonstrating democratic principles in all its functioning and also in the routine management of its plant? Are there no problems pertaining to their work which such employees could not discuss to the benefit of management

as well as to themselves? Are there no decisions they might not well share with management? Are there no matters connected with their work which they have every right and responsibility to share with management?

The matter of employee representation of course raises the question of collective bargaining and relationships with organized labor. This is one of those inevitable issues with which the Association world must sooner or later be faced. Can it afford not to be prepared and informed? Can it afford not to understand at least what labor unions are aiming at, any more than it can afford not to know the economic problems of the employing group?

Y.M.C.A. Should Be Prepared

HAS the Y.M.C.A. no educational obligation to the community and labor unions alike, not only in the matter of interpreting one to the other (for which purpose it must certainly know both) but even more in raising the plane on which labor disputes usually take place and in securing a hearing for the essential values? Is this perhaps not the crucial field in which those agencies which typically express the culture's heart and conscience should be the clearest thinkers and most fearless spokesmen? Can the Y.M.C.A. afford not to be among them?

As a matter of fact, the question is not likely to remain unanswered very much longer. When the test now already shaping itself appears in full force, just where will the Young Men's Christian Association be?

In the light of the foregoing discussion *it is suggested that the Y.M.C.A.'s of the United States work steadily toward a position of leadership in their communities with respect to employee policies and relationships, and aim to develop the rich educational and civic opportunities thereby put at their disposal.*

Local Responsibility to Be Retained

IT is everywhere understood that responsibility for employing workers and applying specific personnel policies lies with the local Associations themselves. There is no single body or place where this responsibility rests. However, the effect of such local practices and policies when taken together nationally warrants reference to the Associations in a collective sense, and to their collective obligation to establish sound standards and policies. In the pages which follow, both usages are followed. To refer exclusively to the local Association, or to the Y.M.C.A. as a whole, would be misleading.

The Committee wishes to pay tribute to the highly commendable efforts being made by many Associations to improve standards. Some of these efforts are given substantial treatment in this report. However, emphasis has been placed upon the median practice. It is essential to remember that for every Association whose levels of compensation and whose practices are above the position stated, an equal number fall below it.

Data in Report

It is important that Association leaders take full account of the position thus shown for the total group of Associations included in the report, as well as of variations above and below that position. While improvement in any local Association, large or small, should always be cause for satisfaction, the total position rather than exceptional practice should form the basis for Movement-wide planning in this field.

THE report presents first a brief review of the major characteristics of Y.M.C.A. employees, under the heads; sex, race, marital status, age, dependents, hours of work, major occupational groupings, tenure, wages.

The next section discusses present compensation rates in relation to the factors; type and hours of work, years of service, population of community, sex, marital status and dependents, race as a factor in wage relationships, relation between cash wage and maintenance items, relation between present and 1931 wage levels, relation between current wages and community rates.

Then general working conditions are discussed in answers to the questions; How and by whom are decisions regarding hours, wages and working conditions made? Are non-professional employees represented? If so, how chosen? On what basis is the minimum wage determined for each job classification? Increases? Wages beyond the standard minimum? What stated procedures exist for employment and release? What use is made of job specifications? Are there any recognized promotion patterns? What training on the job is attempted? What responsibility is recognized for sustaining the health and economic independence of workers?

In Section V the discussion of responsibility for labor policy involves the problems; organization of employees, union activity, function of standing personnel committees, trends in employee organization among non-profit agencies.

The report on "Labor Policies in the Young Men's Christian Associations," from which the above extracts are taken is recommended to personnel executives, as well as to those concerned with the administration of social agencies and colleges, for two reasons: (1) It gives a good insight into the personnel problems of these Associations, (to which many industries contribute support,) and tells how they are being met. (2) The excellent survey might well serve as a model for companies, particularly those with many branches, who might desire to get a full picture of what is happening to their employees.

A full copy of the Report may be obtained from Mr. Owen E. Pence, Secretary, Personnel Services Committee, National Council of Y.M.C.A.'s, 347 Madison Avenue, New York, N. Y.

Up to a Few Years Ago, even Economists Felt that the Middle-man or Retailer was a Usurer and Profiteer, Who Benefited Unduly by Extorting an Additional Profit in the Distribution of Goods. But This Attitude is Slowly Changing.

Personnel Practices of Sears, Roebuck & Co.

BY PAUL A. MERTZ,

Sears, Roebuck & Co.,
Chicago, Ill.

THERE is no doubt that distribution, or at least retailing, as one of its aspects, had a bad start in the attitude of the public toward it, and all retailing still suffers. Long before the Christian era, trading in goods was held in ill-repute. This is illustrated by the fact that Mercury, god of cunning and trickery, was chosen as the patron deity of merchants and traders. Cicero declared that no one could be a successful merchant without lying. The old Italian word for retail also meant a tendency to cheat. Such phrases as "Caveat Emptor"—"Let the buyer beware!" and similar expressions with which retailing has been identified for centuries have not in the least helped its cause.

Retailing Becoming Respectable

BUT retailing is becoming respectable, not only in fact, but by reputation. It has a philosophy, a science, an ethical code to which its more successful members adhere. John Wanamaker, Marshall Field, and Julius Rosenwald pioneered its elevation. Retailing is a subject of serious study in an ever-increasing number of major universities. Until 1936, only 43 cities in the United States offered instruction in some phase of retailing. Today, under the stimulus of the George-Deen Act, the development of retail courses is being spread into almost all of our major city public schools, and many of the smaller ones.

Today, in our major companies, a young man of ambition, ability and perseverance can go far into work of executive importance and national significance. In our own company our President started as a stock boy, and our Executive Vice President as a chemist in our testing laboratories.

But, whether our sphere of work is in retailing, or in some other walk of life, we cannot all be generals, colonels, or even lieutenants. It seems worth while to consider in the unsettled business conditions in which we find ourselves, what constitutes a fair deal for the worker who *may* never become an executive. Let us approach it from the angle of the employe himself. What are the minimum essentials?

Income for Self Support

ALTHOUGH not the foremost of his wants, he desires an income that will provide for his self-support, and if a married man, for his family.

Retailing has not had the reputation for the payment of high wages. Many factors have contributed to this: its origin, the limited education required in those it employed until recent years, the competitive struggle for existence, (today more than a thousand new business enterprises start every week in the year in the U. S. and an almost equal number close their doors), the public pressure to reduce the cost of distribution, the lack of personal qualifications demanded for holding a position.

Today, the retailer of high ideals is paying the beginning worker without experience a minimum wage many times higher than some other industries. In line with best retail practice, Sears maintains a definite schedule of minimum wage payments, differentiating between a minimum for women and unmarried men, and men with family responsibilities, varying by cost of living standards in different parts of the country. A high percentage of its positions in retail are compensated not only by salary but by commissions on sales.

Incentive Wage Methods

THE worker also expects that he shall be compensated in proportion to the results that he personally attains, and receive recognition for meritorious work.

To this end, Sears reviews salaries twice a year, and compensates additionally those whose work merits increase. Its commission methods are likewise an incentive. The company does not cut down commission rates during a season when a salesman is earning better than average. Salesmen who render outstanding service are granted *Four-Star Pins* in recognition of their ability. Substantial prizes are given for suggesting workable new ideas. *Service pins* are awarded for length of service above five years, and names are publicized.

The worker expects that his employment shall be as regular as possible, with a minimum of layoffs.

Pay Regularization Plan

THIS is a difficult situation to meet in industry or in retailing. A manufacturer can hardly keep on making goods with no orders on hand, or assurance that he can readily and promptly sell what he has made. Likewise, the buying habits of

the public are such that a busy December is followed by a January in which it might be just as profitable to close the store entirely; also there is no even flow of business by months or even days or hours of the week.

Yet, much has been accomplished to work out this natural desire of the employee. A growing number of industries have worked out plans for better distribution of employment through the year by manufacturing ahead on items in known demand; others have developed an annual wage plan under which they guarantee a given number of weeks of work to the worker per year.

In Sears, a plan of a basic year-round organization has been developed, assuring the regular employee steady work. A dozen of our stores are now carrying on an experiment on constant wage either on a guaranteed year's employment or a varying week length with constant weekly pay. Those for whom we add for hour, day or season peaks are extra employees who either do not desire regular employment because they also maintain households for family whose head is employed, or who are drawn on as regular employees as vacancies develop for those best suited.

Hours, Vacations and Holidays

NOT only does the worker desire steady employment or income, but opportunity for leisure. When NRA came into existence, many of our managers thought that it would be impossible to operate on a restricted working hour basis. Yet, for four years we have worked on restricted hours, varying with the states, as to number of hours.

Although many stores have one or more evening hours of business because our customers want it, the employee cannot be scheduled for more than two evenings, nor a total of more than 40-48 hours per week, dependent upon locality. Junior executives are likewise restricted to 54 hours, but their compensation is better.

Leisure also implies opportunity for unrestricted change of scene and activity. Our employees are given one to two weeks of vacation with pay, dependent upon length of service, and they are paid in advance so that they may actually take a vacation instead of merely staying at home. Employees are paid for all national holidays as well.

The worker expects protection for unforeseen emergency, such as sickness, accident and loss of job.

Long before unemployment insurance legislation, Sears has protected its employees in their unforeseen emergency. For illness, its practice is as follows:

SICKNESS ALLOWANCES

Regular employees of five years' (continuous) service are allowed full salary beginning with the third working day up to a maximum of ten work weeks.

Regular employees of two to five years' service are allowed full salary beginning with the second work week up to a maximum of eight work weeks.

Regular employes of six months' to two years' service are allowed full salary beginning with the second work week up to a maximum of three work weeks.

Extra employes and regular employes with less than six months' service are not given a sick allowance.

In no case shall the amount paid be more than the employe would receive if at work.

Allowances are not paid for sunburn or results therefrom, nervousness where there is no organic trouble, contagious or infectious skin disorders, pelvic disorder, venereal disease, conditions arising from pregnancy, or resulting condition requiring absence, or for ailments present when the employe was first engaged.

Allowance of full pay is granted regular employes for absence on account of death in the immediate family from day of death to day after the funeral.

Regular employes are paid for holidays upon which the store is closed if they are present on the working day immediately preceding and the one immediately following the holiday.

If you go on jury duty you receive full pay upon turning over to the company pay received from the city, county or state for such service. If the jury pay is larger than your salary, you may keep the jury pay but are not paid for time off.

Store managers have special instructions regarding payment of absence allowance for special conditions not mentioned here, including accidents."

Another type of emergency is total disability and death. The company offers group insurance coverage on its employes—life and total and permanent disability, at a cost of 50¢ per month for \$1,000 insurance, without physical examination, all costs of administration being paid for by the company. Those who can afford more are permitted to carry additional amounts, based on salary received, up to \$7,500 insurance. The mail order plants have their own hospital facilities, and retail stores have access to Metropolitan Life Insurance nursing service without cost.

The Company also maintains its own facilities for making loans to employes in emergencies such as operations to dependents and other legitimate unforeseen burdens on income. The company thus discourages salary garnishees and the pressure of loan sharks upon its employes. In some stores Credit Unions are maintained. A service allowance, graduated in amount by length of service, is paid to employes released by the company, to provide some measure of income while seeking employment elsewhere. Hospitalization plans are also operative in some stores, and plans of extension are under way.

The worker desires an opportunity to save his money and be prepared for retirement when he is no longer able to work.

Savings and Profit Sharing Plans

ALTHOUGH social security laws have been put into operation, Sears has had its own employee social security for twenty years, in its employee savings and

profit sharing plan. While membership is voluntary, a great majority of employees are making regular deposits by payroll deduction to this fund, these funds being matched with company contribution on a liberal sliding scale, based on length of service, from 5% of company profits annually, before deduction for dividends or income taxes. The employee puts in 5% of his income, the company's contribution being proportioned under five years of service on the basis of the employee deposit; five to ten years at twice their annual deposits, and after ten years on the basis of three times the employee's deposits of the preceding year. The fund is converted into company stock accounts.

As of May last, the fund had assets of \$44,205,568 after paying out to employees \$45,203,989 in the twenty years of its operation.

A typical case is one of a secretary earning \$25.00 a week who started with the company 20 years ago at the age of sixteen. Stock credited to her account is worth at today's low market approximately \$10,000. If the employee leaves the company, he may withdraw his savings at 5% compounded semi-annually, and after ten years of service all money and securities, including the company's contribution.

There are liberal exceptions to the under ten years rule in the case of women leaving to marry, the employee's death, or if his release from service is not of his own volition. The obvious effect of the plan is that the employees become stock holders and therefore part owners of the business, which we regard as a tremendous factor in identifying his own with the company's interests. He works faithfully because he wants his company to prosper.

Although in no sense is employee's discount profit sharing, it may be noted that the employee is given the privilege of employee discount of 10% on the purchase of more than forty thousand items for his own use, and that of his immediate family with whom he lives or whom he supports.

Another factor in which the employee is interested is "What are my chances of getting ahead?"

Promotion and Training

IN SEARS, the employee sees the answer about him constantly. He knows that the company definitely fills its positions of responsibility by promotion from within. Except for a handful of specialists in the headquarters organization, every key job in the stores and headquarters, for a number of years, has been filled by promotion instead of outside employment. This is also true of mail order. He also knows that classes are provided in Parent, Mail Order and Retail to further the employee's understanding of his job, the job ahead, and his company. In retail, textbooks, outlines of meetings, tests and demonstration sales are worked out. These classes are open to any ambitious employee and are regularly attended by employees whose present work involves the knowledge that is imparted. Another factor in the employee's catalog of desires is satisfactory physical working conditions.

This is no major problem in a retail store since facilities are, on the average, far more safe, comfortable, well-lighted and convenient than in the typical industry. However, this is safeguarded by the numerous visits of Parent and field executives who have ample opportunity to secure action on conditions that are unsatisfactory in any degree, in case they have not been handled locally.

Open Door Policies

FINALLY, the employe wants a chance to express his dissatisfactions without the danger of dismissal because of his frankness. To this end, every executive and every employe knows that the company's policy is the Open Door, from the Chairman of the Board, down to that of the smallest store's manager. Our employes speak freely and get a sympathetic hearing because the example is set for us by the heads of the house. When an employe feels that he cannot get a satisfactory hearing of his grievances, real or alleged, he knows that a letter to the President will bring on a real investigation of the situation.

This has an excellent moral effect on the local management in its daily handling of people, if for one moment they neglect to keep themselves posted on their employe's attitudes or permit conditions to fester that produce bad morals, and don't think that employes do not avail themselves of the opportunity to write the President—because they know he will reply, and will ask the Personnel Department or field representatives to check on the situation and report back. Appropriate action follows.

The employe wants sympathetic and helpful supervision, and a cleancut understanding as to whom he shall receive instructions from. The employes' grievances are rarely against his company, they are against his immediate supervision. Our training efforts with those who supervise are constantly in the direction of securing more intelligent direction.

The employe wants an outlet for consideration of his ideas and as to how the business should be conducted. Suggestion systems are used in our mail order stores and suggestions are paid for in cash.

The above may serve as a check list of an employer-employe relations program that we believe to be functioning exceedingly well. It has produced an extremely loyal, capable and happy organization.

Extracts from an address delivered at the Third Annual Tennessee Industrial Personnel Conference.

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"Throughout the Fall and Winter We Have been Holding Regular Joint Monthly Meetings of Foremen and other Supervisory Officials and Local Union Officers and Committeemen from 23 Different Firms under Contract with the S. W. O. C."

Labor's Point of View

By CLINTON S. GOLDEN

Northeastern Regional Director
Steel Workers Organizing Committee of the C. I. O.

TWO years ago the steel industry completed what may be described as a half-century cycle of industrial relations. We are now just beginning the third year in a new cycle of the industry's labor policy. I feel it will be instructive to us all to review, very briefly, the industry's employer—employee history, particularly during the last cycle. This history, in my opinion, is essential to a clear perspective of the new cycle of industrial relations upon which the industry embarked in 1937; it is important for the additional reason that the steel industry, by and large, sets the standard for industrial relations in industry.

Early Collective Bargaining

FROM the beginning of the iron and steel industry in America, 1850 to 1889, the small struggling iron and steel masters dealt with their workmen as a group. The steel and iron workers' union during the eighties was the largest and strongest in the country. Small steel masters, like Mr. Donner, for example, who operated tin mills in Monessen, Pennsylvania, knew his men personally, called them by their first names. When a dispute arose, the men went to Mr. Donner's home on the hill, talked out their problem with him, and reached a mutually satisfactory settlement. The result of this policy—collective bargaining with the workers through their trade unions—was industrial peace generally.

In 1889 the industry slowly began to change its policy to "We oppose organized labor, and will only deal with our employees as individuals." Homestead, Pennsylvania, was the battleground. Andrew Carnegie, a bit uncertain of his position, reluctantly extended the union's contract to 1892. He felt certain of his position

in 1892, sailed for a visit to his birthplace, Scotland, and left to his subordinates the job of changing the labor policy. The result of this decision was industrial warfare, beginning with the Homestead strike of 1892.

This warfare continued intermittently for a quarter of a century as the workers tried in vain to change the policy back to that of the pre-1892 days. U. S. Steel's birth was greeted with the 1901 strike. Mr. Donner, of whom I have spoken, sold his small mills to the newly born "Steel Trust." No longer could the Monessen workers argue out their problems with the Big Boss. The Big Boss became an invisible power. Supervisory management officials when presented with grievances from the men shrugged their shoulders, and said: "Orders from New York." Thus the absentee ownership of American industry came to be established on its throne, and coincidentally began the development of our industrial enterprises by corporate industrial dictatorship and discipline.

Early Strikes

RENDERED helpless by the all-powerful corporations, the steel and iron workers for a generation repeatedly tried to re-establish their former organized status. The tin and sheet mill workers struck in 1909. Bethlehem Steel workers struck the year following. Youngstown steel workers struck in 1917, burning the town of East Youngstown, which has since been rebuilt and rechristened Campbell, Ohio, in honor of the late head of the Youngstown Sheet and Tube Company. And two years later a veritable revolution struck the industry when a general strike of its workers took place. Finally, after 30 years of recurrent warfare, the industry began to enjoy the fruits of its long and costly wars with its workers. There followed from 1920 to 1933, 13 unbroken years of industrial peace. The price of that peace was servitude for the workers.

Company Unions Represent New Policy

THIS cycle of the industry's labor policy was ended almost in 1933. Mr. E. T. Weir, however, prolonged it four more years when he defeated the Weirton strike. But the seeds of a new cycle in the industry's labor policy were sown in 1933. Company unions were created. Their significance lies in the fact that they symbolized the end of the "We will only deal with our employees as individuals" policy. The "employee representation plans," as they were officially dubbed, established to a limited degree the new policy of dealing with workers as a group. It only remained then for the Steel Workers Organizing Committee (S. W. O. C.) to come along and put this policy into full effect. By March 2, 1937, S. W. O. C. had forced U. S. Steel to lead three-fourths of the industry back to its pre-1892 labor policy of (a) recognizing legitimate collective bargaining, and (b) dealing with the workers as a group through independent (of management), bona fide, trade unions of their own choosing.

With the return of the pre-1892 labor policy industrial peace came to

three-fourths of the industry, while the other fourth, the so-called Little Steel group, tried in vain to continue the cycle which started in 1892. But in spite of the abortive efforts of Mr. Thomas Girdler, a new cycle of industrial relations started in the industry in 1937. It is this new cycle of industrial relations (labor policy), to which I shall devote my remaining remarks.

In presenting labor's point of view, as I understand it, on management-union relationships, I wish to subdivide my comments into two categories: namely, personnel and democratic principles

Place of Foreman

I SHALL discuss personnel—on management's side and in the trade unions—first. Once employers begin to bargain collectively with their employees as a group—a group organized and functioning quite independently of management—union-management relations take on a distinctly personal flavor. In the early days these relations either got on smoothly or ran into trouble, dependent largely upon the respective abilities of employers, minor executives, foreman, union leaders, committeemen, and members to adjust themselves to the democratic machinery of collective bargaining.

The key man in union-company relations is the department foreman or superintendent, because to the individual employee he is the company. Under the system, established in 1892, of corporate dictatorship and discipline, each department of the large industrial firms was set aside as an entity in itself, a small kingdom. Over this kingdom the foreman or superintendent ruled as judge, jury, prosecutor, and king.

In this connection an operating vice president of a large company operating mills in several different localities recently told me that as he looked back over the period prior to signing the first contract with the union, he now realized that in effect his company operated a number of independently functioning business enterprises, the total number of which corresponded roughly with the total number of departmental superintendents, each of whom was free to hire and fire and run his department about as he pleased with a minimum of interference from top management—just as long as he ran it with some degree of efficiency.

The Foreman's Kingdom

THE individual worker was told what to do, and he did it "or else." He was at the foreman's mercy when he had a grievance. Behind the foreman was the power of the company. The individual worker had behind him exactly no power at all. He was merely a subject in the foreman's kingdom, and he remained a subject just as long as he was an humble one. When and if he tried to get the power of the other workers behind him by organizing them into a union, he was fired. Then he was blacklisted. And when he did find private employment, he was required as

a condition of employment to sign a yellow dog contract. Some companies of course were less ruthless but only in method, not substance.

Under a genuine collective bargaining procedure all this changes. The foreman's kingdom is converted into a republic. The individual worker, supported by his fellow workers, is placed on a basis parallel with the foreman or superintendent. The worker enjoys the democratic right to seek the redress of his grievances. If he cannot do this with his foreman, then over his head he goes until, if necessary, his case is discussed by the union representative and top company executives or submitted to an impartial umpire for final settlement. This is a big pill for many foremen to swallow, for many it is a bitter pill, and some are not big enough personally to swallow it. Yet the success of collective bargaining depends upon the ability of the foreman to adjust himself to this new condition more than it does on any other one thing.

In the S. W. O. C. we can measure our relations with the different firms by the extent to which their foreman and operating officials make the necessary personal adjustments. Where they refuse to relinquish their dictatorial powers, object to having their decisions subject to the scrutiny of their employees, and fight to weaken the union's power and prestige, there has been trouble. But where supervisory officials have gracefully made the adjustment, realize that they must defend every decision on the basis of its merits, recognize the inherent right of their employees to present grievances, and try to settle them on their merits regardless of the effect such settlements may have on the union's power or prestige, very few difficulties that could not be adjusted were encountered. I am happy to say that the latter condition has prevailed with almost all of the firms under S. W. O. C. contract.

Most Foremen Adjusted to New Relations

TOP and minor executives have to make the same kind of personal adjustments although naturally on a different plane. My experiences have been primarily with top executives, as contractual relations in the plant are administered by the local union committeemen and plant foremen, superintendents, and general managers. My experiences with the top executives with whom I deal have been interesting, more so as I look back upon them over the last two years. At first in 1937 they were uncommunicative. Some looked at me in astonishment when I took my hat off, because there were no horns under it. Others frankly told me they hoped their relations with my union would be short and sweet, because when the opportune time came they were going to "put this damned union" where it belonged. Still others approached their new labor policy with an open mind. Today our relations with most company executives are cordial. A few weeks ago 30 top company executives were my guests at a hotel dinner where we discussed the broader economic problems confronting the country as a whole.

Salesmen Best Negotiators

IN MY OPINION, I should like to repeat an observation, previously made by one of my associates, to the effect that salesmen and purchasing agents make better "labor relations" or "personnel" executives than operating officials. A salesman has been reared in an atmosphere much different from that of an operating or a production man. The nature of the salesman's job requires him to be patient. He has experience in bargaining, giving and taking, and in judging the other fellow. He can patiently negotiate on a point because he knows eventually some agreement will be made. He knows how to compromise. In contrast, the operating man has a completely different training. The major thing that has been inculcated in him is the importance of efficiency, and the only way he has been taught to get it is through giving orders. He has learned how to take orders and give them. The nature of his work has been to "do what I am told." In turn, he has told others to "do as you are told, or else."

It is much harder for him to change over to a democratic attitude than it is for a salesman. The operating man quickly gets impatient in conferences, easily flies off the handle, and is frequently irritated by having a union committeeman question one of his acts. The salesman, on the other hand, does not have as much to unlearn and, by and large, he makes the necessary adjustments easier and more effectively. I do not mean to imply that only salesmen or purchasing agents make good executives to handle labor relations for a company. I merely say my experiences have been that their temperament is closer to the temperament required of a man to bargain collectively with union officials than is that of an operating man.

Union Officials Reflect Relations

A WORD now about union personnel. By the same token that the foreman symbolizes the company to the individual worker, so in many respects to the company, the local union officers and committeemen symbolize the union. Trade union personnel to a large degree reflects the background of industrial relations in any particular plant as well as the current labor policy of that plant. Workers who for generations have been discharged, blacklisted, and persecuted for union activity are slow in shedding their fears that their employer has not ceased fighting their union just because he has signed a contract with their union, his first contract.

They question the company's motives for each action, interpret every company move as hostile to their union, and generally assume an attitude of resistance to the company. The union becomes a mechanism for protecting them against the company. It is only natural that this should be so, because the employees have been embittered by the use of labor spies, tear gas, discharge, eviction, yellow dog contracts, and other methods of opposition used by their employers to keep them in an unorganized and helpless state.

This natural attitude of the employees, which their local union leaders reflect, can only be changed by the company and its management officials, whose acts and words need to impress the employees with the company's sincerity and good faith in dealing with their union. And until an employer impresses his employees with his sincerity and good faith toward their union, he cannot begin to enjoy cordial relations with the union.

Belligerent Leaders

DURING the organizing stage of the union the sober-serious-minded employee, who takes his personal responsibilities seriously, does not always take the lead in forming the union. Usually it is the adventurous, courageous worker who steps out, sticks a chip on his shoulder, and tells his boss: "Fire me if you dare. We're joining the union." To oppose the legal and other methods of employer opposition to unions, courageous leaders are an absolute necessity. Once the union is established, however, union leaders have to adjust themselves to co-operating with the company. That is, provided the company in the first instance indicates a desire to cooperate sincerely and in good faith.

Now it is sometimes as difficult for local union leaders, who have gone through a bitter fight against their employer to win the right to have a union, to adjust themselves to co-operate as it is for foremen who themselves have been trained to fight unions. When an employer complains to me that his local union leaders are belligerent, I must remind him that his chickens are coming home to roost. He has opposed the union for years, so much so that only his more adventurous employees have become the leaders. Had he been less vigorous in his opposition, or better yet offered no opposition, the more responsible employees would have risen to leadership first. An employer, as a prominent one once said, usually gets about the kind of union leadership he deserves.

The S. W. O. C., for example, has a pretty well organized program to see that as quickly as possible the proper kind of personnel is in charge of its local unions. Where an employer's attitude is in doubt and we fear he will pick a fight when he thinks the opportune time has arrived to abolish the union, S. W. O. C. makes no attempt to train the local union's leaders in the ways of union-employer co-operation. No such attempt is made for the obvious reasons that (a) co-operation must be initiated by management, and (b) until management indicates a sincere desire to co-operate, it is necessary for the self-preservation of the union to see that it is led by men who can successfully resist any efforts by the employer to destroy it.

Local Leaders Trained

BUT in those instances where it is plainly observable that the employer is sincere in his relations with the union and wants to co-operate, S. W. O. C. does what it can to see that the local union leaders are trained to so co-operate. In addition

to our regular trained staff in the field, which closely supervises our local unions, we have a special training program to assist local union officers in becoming skilled collective bargainers. Most of them make the necessary adjustments, but where they don't they are gradually replaced by union members who can.

This year we are conducting a summer training camp program in one of the National Park Service camps for 10 weeks. We will be able to accommodate between three and four hundred of our local union officers this summer, and over a thousand will attend from the several other participating unions. This summer's program is an outgrowth of our training camp held at Mt. Davis last summer. The major subject of discussion at the summer training camp is union-management relations. We attempt to broaden the experience of those attending. As a result of this training program, which is held in the various districts during the less seasonable months, some employers have told us their foremen are a poor match for some of our local leadership.

Union Arranges Foreman Meetings

WE HAVE just completed a novel, but important, experiment in one of our sub-regions. Throughout the fall and winter months we have been holding regular joint monthly meetings of foremen and other supervisory officials and local union officers and committeemen from 23 different firms under contract with the S. W. O. C. The tangible result of these joint meetings, where problems of seniority, discipline, production efficiency, safety, etc., are discussed, has been a better understanding between company and union representatives. In fact, we have noted a spirit of co-operation developing in place of the previous atmosphere of suspicion and distrust.

The personal adjustment of both union and company officials to new conditions requiring co-operation has been difficult mainly because of the long and bitter background of union hostility. Yet this personal adjustment, orientation to new and different ways of doing things, is essential, an absolute requirement, to make the new policy of group relationships between management and employees work.

Democratic Principles

THE first two years of the new cycle of industrial relations in the steel industry are behind us. During these two fateful years, by and large, the necessary personal adjustments in the method of doing things have been made. Many adjustments have also been made in the mode of thought. But vital adjustments in the mode of thought, mainly by management, essential to place union-management relations on a constructive, democratic, and permanent basis are in front of us. I do not think I am being prophetic, but merely stating a fact, when I say that the ideas currently held by a majority on management's side will have to be changed. If their popular mode of thought is not changed accordingly, I fear recurrent war-

fare and not industrial peace will mark the immediate future years of the cycle of industrial relations upon which we have recently embarked.

Closed Shop Advocacy

I AM hopeful that the democratic ideas and principles, to which I shall devote my concluding remarks, will be accepted and adopted by management without costly and unnecessary difficulties. This new cycle of industrial relations itself has required perhaps the most profound and far-reaching change in the mode of thought of industrial management that has taken place in the last few decades. The democratic idea that workers have the right to organize, bargain collectively, and have a voice in the operation of industry *in practice* is the basis of the new cycle of industrial relations. Except *in theory*, this democratic idea was considered a heresy during the recently ended cycle.

Just as the idea of bona fide collective bargaining was considered a heresy until a few years ago, so at present the idea that all employees of a given plant should be union members in good standing is considered a heresy by a majority on management's side. Yet this democratic idea, namely, when a majority of the employees in a given plant belong to the union, all of them should belong as a condition of employment, will have to be lifted from the category of a heresy and placed into the category of a working policy before union-management relations can begin to reach the possibility of full development.

This democratic idea is not as revolutionary as it may at first appear. It is an idea that we all believe in so far as our political life is concerned. The thing that is revolutionary—to management—about it is that it should be applied to our industrial and economic life as well as our political life. One of my associates states it thusly:

Union Dues Like Taxes

ALL the workers are bound by the union-employer contract. The wage increases, shorter hours, and other benefits secured by the majority are enjoyed likewise by the minority. The union has to pay hall rent, postage, grievance committeemen for lost time, and other expenses. To meet these obligations every member must pay the taxes (union dues) levied by and for the support of the union. All the workers derive equal benefits from the union, and therefore they must all share equally in paying the cost of its upkeep. Every plant, like every city, has that recalcitrant minority that has to be compelled to meet its obligations."

Why can't union-management relations be kept on their present basis indefinitely, you may ask? Why can't management deal with any group of its employees, deal with individuals in cases, and only deal with one union for all employees when that union is certified as the majority union by a government agency? As long as this half-way policy prevails, the union in your plant is kept on the defensive, and

necessary to maintain its own existence. When an employer says "My employees are free to belong or not belong to any labor organization," he, in effect, is saying to the union, "I will defend any employee who refuses to join the union." The union members interpret this defense of such employees as a conscious design to use them at an opportune time to destroy their union. This half-way policy of management has provoked one of the country's outstanding management engineers to observe:

Unions Fear Destruction

PRACTICALLY all labor leaders, and I may add practically all industrialists, look upon the union wholly as a mechanism for adjusting grievances. As long as you have the organization set up for the adjustment of grievances and emphasize that, you cannot use it for more constructive purposes."

Employers, when they so choose, can have it otherwise. The S. W. O. C. issued, almost a year ago, a pamphlet entitled "Production Problems," which sets forth a program for union-management co-operation to improve productive efficiency. This program is predicated upon management's complete acceptance of the union. In order that the union might engage in such a program its status must be assured, permanent, and unquestioned. Such a status requires that membership in the union shall be a condition of employment for all employees. Until management is disposed to grant the union such a status, its relations with the union will be, as a prominent writer once put it:

"A negative business . . . no give-and-take, but mere force and yielding to force; mere taking advantage of one another's weaknesses. . . ."

Management's half-way policy toward unions has compelled them to be "mere mechanisms for adjusting grievances." For the first two years of the new cycle of industrial relations in the steel industry the union has been patient, but with the passing of time the union is becoming impatient with its incomplete and doubtful status. This question of union status, therefore, will be the most important one confronting management in the coming months. If this question is composed around the conference table, as I hope it will be, management-union relations should progress smoothly and efficiently. But if this question becomes a battle cry, the character of management-union relations will be adversely affected for an indefinite period of time.

Question May Cause Labor War

MAY I conclude by telling you of an article I have recently read in a publication of nation-wide circulation. It was written by a well-known management executive who recently made a world tour of the countries in which labor had attained the greatest degree of organization. I want to quote from the article:

"Looking at the American situation, a number of employers recalling their own earlier experiences made this remark, 'You in America have ten years of labor

hell before you. Even if you do come quickly to a general acceptance of unions, it will take that long to breed out the strong-arm type, but as long as you fight the unions, they will have to have fighting leaders. Negotiators are developed only by negotiation. You employers are to blame that you haven't a higher type of labor leadership.' "

That quotation is from a publication not published by the C. I. O., rather it appears in the April 1939 issue of *Nation's Business*, the official organ of the Chamber of Commerce of the United States. I commend the entire article, which is entitled, "Industrial Peace Overseas," to you for careful reading and thoughtful study.

From a talk delivered at the Nineteenth Annual Industrial Conference, Pennsylvania State College.

According to a Recent Authority American Industry Faces Ten Years of "Labor Hell," for it will Take That Length of Time to Breed out Fighting Labor Leaders if Unionism is Immediately Accepted. "Negotiators are Developed Only by Negotiation."

Collective Bargaining Case Studies

BY CHARLES S. SLOCOMBE

Research Federation

Some indicates that relations with affiliated and independent unions, under collective bargaining, change and develop through the years. Much of the development in the past has been determined by opportunism and chance. This is not for the best. Many unfortunate and inequitable practices have grown up, and have become semi-permanent fixtures in our industrial pattern, due to this opportunistic growth of collective bargaining practices.

In the face of this situation it would appear to be desirable to find ways through relations with unions to mutually mould or influence the direction of collective bargaining development so that its evolution will be to the best interest of industry and employees alike. Perhaps, management must take the initiative in this.

Collective Bargaining Now Hamstrung

EXPERIENCE of the last five years in some American companies has shown that unions and management, when the proper approach is made, are thoroughly capable of cooperating to improve their collective bargaining machinery, and to prevent undesirable practices and relations from developing.

In this connection, Fred W. Johnson, Vice President of the American Stores Company, of Philadelphia, points out:

"Collective bargaining efforts have been hamstrung in some quarters by a studied attempt to have it appear that management and labor are naturally antagonistic forces. While this is a serious obstacle now to the cultivation of confidence and co-operation between labor and management, it will gradually fade out as leaders obtain a clearer insight into the basic essentials of true collective bargaining.

COLLECTIVE BARGAINING

"The next step in the development of collective bargaining almost certainly will be in the direction of co-operative bargaining, in which labor and management will think, and plan, and work, in terms of helping each other to solve problems common to both."

In considering the facts about different collective bargaining setups that have been and are developing with both affiliated and independent unions, one may well divide these into three general classifications for case study:

(a) Cases in which collective bargaining over wages and working conditions is the dominant factor, and leads to frequent strikes and threats of strike.

(b) Cases in which collective bargaining is still the only concern, but in which machinery has been developed for settling differences of opinion in a peaceable manner.

(c) Cases in which there is not only collective bargaining, but also various forms of collective cooperation between the workers' organization and management for the benefit of both.

To illustrate these three types, how changes come about from one type to another, and the sort of case studies that are desirable in analyses of collective bargaining and group relations, there follow brief reports of six case studies.

I. Strike Threatened Relations

THE following is a copy of the main source of an all too familiar type of interchange under the first type of collective bargaining. It is reproduced here, not with a view to being critical of either union or management in this case, but merely as a report of a negotiating conference.

The discussion opened on the question of wage classifications in the warehouse. The union had asserted that wage minimums of the company were lowest in the city, and that the management's practice of grouping such people as responsible checkers and storekeepers into low classifications ought to be changed.

"We insist that these people should have pay more in accord with their responsibilities," said the union negotiator. "It's an outrage for a storekeeper to be on a \$30 minimum."

The union negotiator pointed out that the classification scale which the union had drawn up was not iron-clad, but was merely a starting-point in the negotiations.

The management representative objected to any changes, maintaining the classifications set up in last year's negotiations were sufficient.

Acrimony Develops

ACRIMONY developed as time went on.

"Why do you want to hold out," demanded the union negotiator, "against all the rest of the city, when other companies have agreed that job distinctions can be drawn on paper and written into a contract?"

"I object to being told I'm holding out," said the management representative. "Anybody would admit these jobs are very difficult to classify."

"We think they're simple to classify, and we've done it," the union man replied.

"Well, your classification doesn't convince me," replied management.

"Well God knows maybe nothing will convince you."

Negotiations grew in heat, one declaring he was sick of the other's line of chatter, and the union at one point maintaining the management representative had lied. Finally the situation became so difficult that management suggested the meeting be adjourned. Nothing was settled, the feeling continued unfriendly, and the matters at issue were left to be taken up in the same spirit again.

Negotiations in this same tenor have been going on for three years, with the possibility of a strike always present.

It is highly undesirable that distressing relations such as these, which exist in many companies, should be continued, or that this pattern of collective bargaining in industry should become fixed.

Unquestionably one way to aid in the improvement of such relations, and to prevent their being started in companies newly entering upon group relations, is to

make available to company executives information gathered by research and analysis showing how other companies have succeeded in avoiding such relations, or having unavoidably entered into them, how they are seeking to develop relations in more helpful directions.

The following case studies describe different approaches that have been made to the solution of this problem.

II. Good Technique in Negotiating

IN CONTRAST with this situation we now present a brief extract from a collective bargaining conference in which the parties proceed in a calm orderly manner.

This is due to the fact that over a period of years the special personnel research division set up to watch collective bargaining developments in the company has made a study of the ways of negotiating. It has assisted operating executives in such matters as; spreading the discussion among the various representatives present, instead of the chairman doing all the talking, as usually happens; setting up joint subcommittees to study classifications, prevailing rates, and other matters on which there might be differences of opinion; reporting to the different plants the methods and results of collective bargaining that have come up, so that when a subject comes up in one plant, and is dealt with, the method of handling it is studied and passed on to another plant, so that when the subject comes up there the collective bargaining may be of the best sort possible in the interests of both management and the workers; etc.

The series of conferences took up the important question of the basic week on which their wages are calculated.

First Conference

A MANAGEMENT representative opened by stating the Board of Directors of the company had complied with a request of the employees that a committee be chosen to represent the directors in discussing the matter with the employees. A committee of three had been designated, he said.

The union negotiators (having carefully mapped out their tactics in advance, in contrast to the usual method) began by asking to have the following three pertinent questions formally recorded in the minutes:

1. Is this committee appointed by the Board of Directors?
2. Are any members of the committee directors?
3. Are the members of the committee empowered to act for the Board?

The first question had been answered by the management representative in his introductory remarks. The answer to the second was "no".

To the third, the management representative replied that the committee was not empowered to act for the Directors, but was authorized to recommend to the Board, the action the committee felt to be appropriate based upon the discussion.

A brief prepared by the union committee was then read into the record by the secretary. The first management representative, carefully avoiding an argument, stated the management committee would give it careful consideration. He added, tactfully, that it contained many points of interest, but that while he did not wish, at this time, to review the brief in a critical way, nevertheless he thought it con-

tained some mistaken views, such as statements that "the stockholders have sustained no loss," and "we at present are suffering smaller earnings despite business improvement."

He pointed out that the Company's surplus, which had been considerably reduced the last few years, belonged to the stockholders, and that its reduction constituted a distinct loss to them. He stated that while there had been a slight upturn in general business, the company was still losing money.

The fourth union delegate inquired whether a similar surplus had been built up for the employees. The second management representative replied that in a certain sense this had been done since wages of the company were kept at a steady and fairly high average level in good times and bad, in contrast to wages in outside crafts, which fluctuated greatly. He pointed out that employees were now reaping the benefit of this long term treatment.

The first management representative stated that his committee would like to study carefully the brief submitted by the union committee, and would like to meet with them again in two weeks.

On adjournment at the request of the union the management representatives agreed that they would not forward their recommendations to the Board of Directors until they had been further discussed with employees.

Second Conference

Two weeks later the management committee presented their reply to the union brief. They concluded with the following statements:

"In view of all this and, in particular the fact that employees in this area are favorably situated when their earnings are compared with the earnings in comparable crafts in other industries there appears no sound basis for a 10% increase in wages at this time.

"The committee is mindful of the importance of the matter and continual review will be made in the future to determine that our wage rates and working conditions are at least as good as those in other plants, and management will continue to discuss wages and working conditions with the union as in the past."

Delegates briefly discussed various points in the management committee's statement but did not attempt an extended refutation of their arguments. Instead they stated that minutes of the two meetings would be prepared and distributed promptly to their constituents, and stated that they wished to refer the whole matter to their locals meeting the following week.

They again asked the management committee not to forward its formal recommendations to the Board of Directors until after the locals had sent in their replies and a further meeting held at which the delegates might express the views of employees by means of a recorded vote.

The management committee agreed.

Local Meetings

The report of one of the locals indicates the friendly but firm and intelligent manner in which employees dealt with the question. They outlined their objections to management's contentions and made requests as follows:

"This local requests that the practice of the management in comparing existing wage rates of their employees with those of employees in other industries be discontinued.

"Management refused to admit this comparison in 1929 when employees requested it. However, we would appreciate a statement at this time explaining which industries have been the basis for these comparisons.

"It is requested that generalities be omitted and specific industries indicated in the answer to the above."

Management representatives, in the face of these somewhat frank demands courteously stated they would endeavour to bring to the next meeting data on wages paid in other industries. Accordingly, the subject was carried over to the next meeting.

These are three out of a progressive series of conferences, in which employees were negotiating for an increase in wages which would add \$500,000 a year to the payroll of the company.

While these discussions seem very long and protracted, in actual fact agreement was reached in faster time than in the case discussed above.

This is the best series of collective bargaining conferences we have come across in our analyses. It shows true collective bargaining in which there is reasonable equality between the two bargainers.

III. Background of Relations Difficult

OUR third case is selected to show the background of a most difficult collective bargaining situation, and what is being done to remedy it. It will be evident that union delegates representing such men must be very hard to deal with.

The following is an extract from a sociological report into conditions in the plant in 1955, prior to the organization of the employees by a union.

Employee A said, "If the men get smart we can still hold the production down. What we want to do now is on one night shift run around 126 pieces and on the next night run around 120. Any man who runs over 124 every night is only cutting his own throat."

Foremen Unconcerned

HE WENT ON to say that it was possible to run around 140 pieces in a shift, and when someone asked if the finish would be as good, he replied:

"It wouldn't be any different because the men have been going at the same speed as long as I can remember. I always run around 72 pieces before supper and then loaf around during the second half of the shift. When we only had to make 118 I used to be through work around 11:45 P.M. We just stood around talking then, for the foreman didn't care what you did as long as you had your production out."

Employee B went through the department to take up a collection for the benefit of one of the employees who is in jail charged with drunk driving. One employee said that another man was taking up a collection in the main tool room; that this same offender had appealed his case when it first came up and \$60.00 had been collected to get him out on bail, that he had since left his wife and children, and that he for one was not going to contribute. He added he understood the offender had lost his job.

Employee C remarked that his machine needed repairing but the foreman would not see to it that the repairs were made; from his comments it seemed that he was having a lot of scrap. He said the foreman contended that it was the manner in which he was operating the machine which was causing the trouble, but when he challenged the foreman to work the machine, the latter refused and finally got someone to fix it. Now he is having no trouble.

Men Disagree

EMPLOYEE D in conversation said that he had completed his production by 2:45 P.M., and that he loafed the forty-five minutes left before he quit work at 3:30 P.M.

At lunch time the majority of the men had completed from 68 to 70 pieces and in checking the sheet, it was evident that the other men had the same number. The check-up was made after the final pick-up had been made. When one of the employees had ten completed pieces and when E took only two of them, he asked the reason, to which E replied:

"You have turned in 62 and that's enough."

The other asked, "Why, what difference does it make as long as I only get 124 in the nine hours?" and E answered, "Well, last night they picked the sheet up on me at supper time and if you have 66 or 70 pieces turned in for the first half of the shift they will expect you to turn in the same amount for the second half so we leave the extra pieces until after supper just in case somebody should check the sheet and find out what the men really are doing."

There was considerable discussion among the employees about production. This conversation started before work and continued throughout the entire day. The discussion was interrupted by the foreman during the lunch period, but was resumed again in another location. One operator said that the men had no cause to complain because they had in the past run the production too consistently.

"We brought it on ourselves and you know it," he remarked. "We gave them 118 pieces every day, regardless of the time we fooled around and we did it day after day; then they asked for 124 pieces a day and like a lot of d—fools we ran that many. I figure that is where we made our mistake. When they asked for 124 pieces we should have run around 120 and told them that we couldn't get any more. The Company has us right where they want us. They know that anyone of us can get better than 130 pieces. There isn't any use of turning 124 each night because Bill is watching the department and if we don't do better than that there probably will be a new crew put on the job."

Worker Calls Others Suckers

THIS man also stated that the men would get through work from one to one and a half hours early and that instead of staying at their machines they would leave the department. He further said that he had been expecting something like this to happen for a long while because of the manner in which the men killed time in front of the foreman. He said the men should not have completed any more pieces than one-half of the required production as he claimed that the "bosses" came through the department making a check-up.

"At supper time the list would show that we all had turned in sixty-two pieces, but we would have six and eight more laying in the racks beside our machines. We didn't stop to think about a check-up showing that we were running nearly 140 pieces. It is too late now to do anything about it. All I can say is that we are sure a bunch of suckers."

Employee C joined in the conversation and said he would not give the Company any more than 124 pieces for the shifts. When he asked what was to be done about Friday night, employee E answered, "There isn't much we can do."

"I think we should drop back to 118 pieces as we only work eight and a half hours," replied C.

"You fellows had better stop fooling around," another man said. "I'm telling you that you are not kidding the old man. You'd better knock the production out and forget about trying to set an amount for each man to run."

An argument between this man and employee C followed, the latter stating the men should not run above 118 pieces on Friday, while the former stated that the men had better run what they could and stop arguing about it. The argument became quite heated and stopped only when he stated that he intended to run whatever he could get, regardless of what the other men in the department did.

Betting in the Plant

DURING the shift C talked a great deal to various employees, spending about twenty minutes in attempting to make a bet with one of the men on football; according to another of the employees, C lost approximately seven dollars on Saturday betting with other employees on bets he made in the plant throughout the week.

At approximately 7:50 P.M., one man stopped his machine, washed his hands, and left the department, not returning until after the lunch period was over. At 12:45 A.M. he took his tools from the machine, walked across the department, put them in his tool box, returned to his machine and shut the machine down completely. He then stood around until quitting time, when he was washed and had his coat under his arm.

Approximately every hour employee E asked the operators how much production they had completed. Information he received was given to other employees, so that each man would know what the others were doing.

One of the employees, known as "Shorty" was observed suffering from a severe nose-bleed before starting work. Shorty said that he had been to a doctor for a sinus treatment before coming to work, and that the dust didn't do him any good. It is believed that the foreman should not have permitted this man to work in his condition, as his nose bled the entire shift.

Employee C stopped to talk to one of the employees who was supposed to be working. These two men stood by the machine and talked from approximately 3:00 P.M. to 3:30 P.M. During this time the man did not operate his machine and was smoking cigarettes.

As employee E made his first pick-up trip throughout the plant, he informed one of the employees that the men in the department had decided not to turn in more than 124 pieces for the nine hour shift, and he cautioned him not to turn in more than that.

Men Hold Meeting

At some time the entire department got together and checked each other's production. Employee C did most of the talking. He said he had been reprimanded by the general foreman for talking to another employee during working hours, that he intended to talk to whomever he pleased and whenever he wanted to and no foreman was going to stop him. He explained that he had been talking to the oiler for about 20 minutes before the general foreman broke up the conversation. He turned in 122 pieces, and stated the Company could get someone else to take his job if they didn't like the way he was handling it.

During the shift after lunch this employee was away from his machine on three different occasions. On one occasion he talked to an inspector and on the other two occasions he was out of the department. During the entire shift he lost approximately one hour and a half mostly caused by talking.

How Company Is Seeking to Improve Situation

HERE is a picture of a group of dissatisfied and disloyal workers. Not only are they unfriendly to the Company, but quarrel among themselves as to what they should do.

When this plant was organized eighteen months later a bitter strike followed. Collective bargaining has been most difficult and acrimonious, and there has been a strike of greater or less intensity every year since. Jurisdictional and factional disputes among the men are of daily occurrence.

The policy being pursued by the Company has been to place a new man in charge of the plant, so that any old antagonisms may be lessened. It has given wage raises, vacations with pay, introduced a sick benefit plan, and a modified form of annual wage plan.

It is hoped by these means that in the course of time the men will come to have a better liking for the Company, and do an honest job for it. This is taking time, but there is evidence of diminishing tension.

In a visit to another of this company's plants which we made a year ago, on the eve of a narrowly averted sit-down strike, company officials stated that they had been troubled by conditions similar to those described above. They thought however that though much of it still existed, it was disappearing, and though the threat of strike still overhung collective bargaining conferences, actual stoppage of work was now much less frequent than in the past.

IV. How Bad Relations Were Improved

OUR fourth case illustrates another way in which a bad situation similar to the one above was dealt with in collective bargaining conferences. The plant had the advantage of being a small one with only 1200 men, and it so happened that the general manager was so situated for a period of time that he could give a great deal of attention to the problem.

The union agents had been in the habit of coming to the general manager frequently with various grievances concerning rates of pay, assignment of work, etc. It appeared to him from these contacts with union representatives that they were solely concerned with getting more for their members, and that the service rendered was very little thought of, and not at all in relation to the increased pay and improved conditions for which they were asking.

A Bold Stroke

THE general manager called a special meeting at which he frankly sought to turn their attention to this problem of the relation between work done and recompense. He pointed out to the unions' agents that the plant was definitely in competition with other works, that cost of operations were closely watched by the Company, and that while willing and eager to make all reasonable concessions to the man, he thought the union should assume some responsibility in aiding him to operate as efficiently as possible.

The discussions then centered around two points, (a) avoidance of delays and wastages and (b) improvement in the work rendered by individual workers.

At the meetings of the union locals following this conference there was very lively discussion of matters brought up, and this was followed by many more union meetings widely attended. The first move had been successful, in that the men were diverted from concentrating on their grievances, and how they could get more out of the company to a consideration of the objects, purposes and consequences of their work.

Defense Reaction

THE first consequence was a defense reaction of employees. They came to the next conference and told the general manager of the various things that the management did that were wasteful, how, for example, they might be required to build a structure, and would no sooner complete it than it would be torn down, and built again with other materials, or to a new design.

He accepted in good grace the matters that were pointed out to him by the

union agents saw that some of them were remediable within his control, and took the necessary steps to straighten them out, explained how some matters were beyond his control, and that in some other cases in order to avoid expensive delays it was necessary to put in temporary structures which later might have to be torn down. Employees did not seem to be entirely satisfied that all possible steps were being taken by the management to eliminate waste on its part, possibly owing to their lack of appreciation of all the factors in management, but were sufficiently encouraged by the steps taken to continue thinking about their own share in efficiency.

At first they resented and repudiated management's accusation that they were not doing their work properly, either as to quantity or quality. Management had plenty of evidence, however, and pressed the point.

Again union meetings followed in which there was much argument, particularly as some of the older men attended, and flatly accused their fellow workers of poor work—and said that they knew very well that the general manager was right.

Union Men Wish to Be Rated

As a result of these union discussions the men did not admit that the general manager was right, but proposed to him that their work should be rated or evaluated on forms drawn up by the unions. (They called in the personnel manager to aid them.) The rating was to take place every three months, and be signed by the foreman, shop steward and the man himself.

By this means, the unions said proof would be obtained as to whether the men were doing their work properly or not, and who the men were who might not be doing their share.

We need not enter into the details of the forms, and the difficulties and disagreements that have naturally arisen under the plan, but quote briefly from our report of an intensive survey made after it had been in operation for a year. In this survey we interviewed all ranks of management, as well as workers and union officials.

Results in Brief

THE plan has been in operation about a year and the results achieved so far are most encouraging.

- (a) A reduction in the number of real and imagined grievances of employees.
- (b) An increase in operating efficiency as measured by such indices as waste, furnace operating time, etc.
- (c) More expeditious and better carried out maintenance work.
- (d) Saving of money in construction work. (In one case an actual cash saving of \$4000.00)
- (e) Union agents participating in the encouragement of their members to do good work even to the extent of going out on the job, and setting desirable standards of workmanship, and inspecting work done.

(f) Voluntary attendance of fifty per cent of the working force at trade classes in blueprint reading, welding, wiring, etc. so that they may be better qualified to do their jobs.

"Can the plan be held up and continued, or will it go the way of many cooperative plans in the country? How can it be developed and extended, so that it embraces and affects the proportion of employees, including workers and supervisors at different levels, who are not yet participating? Along what lines should further aspects of cooperation be planned and set in motion?"

These are the questions which are very much in the mind of management at the present time.

Plan Has Three Point Base

OUR analysis shows that the success of the plan is due to:

1. Its appeal to and provision for the craft pride and ambitions of the workers.
2. The response of responsible labor leaders when their leadership is respected.
3. The methods and instruments used being strictly in terms of the workers' concepts so that they have readily become part of their working lives.

"We do not feel that at this time there should be any change made in the working of the plan among the workers, but that it should be continued as it is for another year. During this period a continuous series of observations should be made of the incidents, happenings and events that occur, and these observations should be recorded.

"At the end of this period the observations should be analysed and perhaps another cross section study made, so that plans may be laid for introducing modifications to maintain or increase the cooperative force among the men. It is too early yet to say just what these changes might be."

Here we see how a bold stroke by the general manager, a persistent sticking to his point, and patience in meeting unforeseen difficulties, in six months has changed a very dangerous strike threatened collective bargaining relationship to one in which there is no more thought of a strike than there is of war between Canada and the United States. The accompanying benefits to workers and management of the cooperative spirit now present are obvious.

V. How Amicable Relations Deteriorated

WE NOW review a case in which through an unfortunate set of circumstances a collective bargaining relationship which had progressed through to an amicable cooperative stage reversed its direction, and ended up in a disastrous strike.

The case illustrates well the dangers and difficulties that lie in the path of those wishing to develop cooperative collective bargaining relations—and the great need there is for adequate study and anticipation of probable and possible outcomes.

This is the once famous 7 year union management cooperative plan at the Pequot Mill of the Naumkeag Steam Cotton Co. This mill, employing 2500 workers, makes high grade sheets and pillow cases at Salem, Mass.

In 1919 the workers were completely organized and the mill was a closed shop. Under prosperous conditions during the next seven years, management, interested in the welfare of its workers, made many concessions to the union, but required no concessions from them.

However, 1926 being an unfavorable year of business management decided that it could no longer make concessions unless they were indisputably justified. This rather sudden change in policy caused dissatisfaction and dissension among the workers, and they blamed the business agent of the union, thinking that he had reduced his pressure on the Company. Moves were made to oust him.

Cooperative Plan Set Up

HEARING of union management cooperative plans in the clothing industry and on the Baltimore and Ohio railway, he proposed that the union enter into a cooperative agreement with management, by which the employees would aid the Company in meeting competition, by helping to maintain "quantity and quality of production" and cooperating in effecting economies in manufacturing.

For two years the plan worked well; there were friendly conferences every month. These helped the mill officials and the union leaders to understand each other better and the problems which each other faced. The only trouble was that the rank and file of the workers were not brought into active participation in the plan. They were seldom consulted and left everything to their leaders. Thus an excellent opportunity for worker education was not realized. However, 1927 was the best year of business for the Company and there was plenty of employment for the workers.

In 1928 business fell off again and the Company investigated to see where it could reduce costs. It found labor costs out of line, and that with the modern

machinery of the plant, weavers could without hardship tend more looms, and that employees in other departments could also do more than they were doing.

The mill staff worked out new job specifications to increase the number of looms tended by a weaver from 13 to 24, allowing a reasonable increase in pay to the workers retained. This is what the workers call "stretch out".

Through the cooperative plan, the company put it up to the union to accept the stretchout and to work out details of layoffs, etc. The union leaders, who had been sitting in at meetings with mill officials, knew what was coming, and the competitive conditions in the industry which made this move necessary. But they refused to agree, knowing full well that their rank and file members would not agree.

In a union meeting the workers overwhelmingly voted against the stretchout. The cooperative plan provided that, on any disagreement with the company, the union would not call a strike for sixty days. So for sixty days the change was tied up, while the business agent of the union tried to get the company not to put in the stretchout, and tried to get his own members to accept it.

Finally he succeeded in getting both to agree that the union should hire an outside industrial engineer to investigate the problem and report before any changes were made.

Joint Research Proposed

THE engineer reported that workers could unquestionably do more without overworking themselves if their work were properly laid out for them, but that owing to lack of uniformity in working conditions difficulties would arise unless changes were made on the basis of scientific analysis. The union agent therefore brought in a plan for setting up a joint research committee and making stretchout changes on the basis of the facts found by this organization. By this means they would have a say in decisions as to how much stretchout was fair, rather than having to take the word of mill officials.

The mill officials did not like the idea at all, but they wanted to reduce costs. They knew they could not introduce their own stretchout plans without a strike, and were confident that the research would just show that their own plans were sound. So, with many doubts, they agreed to a program by which the stretchout should be controlled by joint research.

The joint research plan went into operation early in 1929. It suffered the usual obstacles to any innovation. Particularly it suffered from lack of a carefully stated and agreed upon order of reference. The research committee was not instructed as to the limits of its field of investigation and its work was not integrated to the whole problem of development of management, union organization or union management relations.

Opposition of operating executives, pressure for immediate results, difficulty in getting agreement regarding those to be laid off, distrust and resistance of every-

one to change were some of the research staff's difficulties. Little or no attempt was made to educate the employees to an understanding of what was going on and why, their main contacts with the program being at the time they were due for layoff. The business agent and other union executives were the only ones who followed closely the progress of the work. Neither did the mill officials educate the supervisory staff, to an understanding of the principles underlying the work and the responsibilities they would face in carrying on the work, when the research was over.

After careful job analyses and time studies, specifications as to the manner in which the workers were to do their work, arrangements for division of work, for supplies of materials, etc., the research staff introduced the stretchout in the weaving room. After getting things running smoothly they moved on to the carding room leaving the operating staff to supervise the stretched-out work. Gradually the workers slid back to their old ways of doing things, organization and supervision gradually slackened and the workers began to find their stretched out jobs involved much harder work than they had done before, and that they could not keep up with the 20 looms they now had to tend.

Friction and Dissatisfaction Arise

As THE research staff moved on from one department to another, and left things in the hands of the operating executives and supervisors the same thing took place. So that, instead of leaving behind them a trail of organized, well planned and laid out work, because neither the workers nor the operating heads were properly educated in the new methods, they simply left behind a trail of frictions, dissatisfactions, and hatred.

Nevertheless, in two years the reduction in labor expense amounted to almost \$300,000 per annum.

But, by late 1931, with business still falling off, and insufficient cuts in operating expenses being obtained through the joint research program, the company proposed a 10% wage cut. The workers hated the joint research so much that they consented to the 10% wage cut on condition that there should be no more research.

The mill officials then tried to increase mechanical efficiency, but by the middle of 1932, at the bottom of the depression, the company was still operating at a loss. So a second 10% cut in wages was announced, and more joint research and stretch-outs.

The union agreed to the second wage cut, but voted to strike if there were more stretchouts.

Six months later a new joint research staff was established, in spite of the opposition of the union officials, who however finally agreed to it. Within five months the mill was closed by a strike, called by the workers in defiance of union officials.

Luckily 2 months later the strike was settled by the adoption of the Cotton Textile Code, and an agreement by the company to defer labor extensions for two years. The workers refused to have anything more to do with their previous union officials, or with the International A. F. L. Union which had supported the union officials. They organized their own independent local union.

Causes of Rise, Decline and Fall Analyzed

HERE over a seven year period from 1927 to 1933 we see the rise, decline and fall of union management cooperation. This noteworthy attempt though failed finally does bring out as no theorizing could do, the factors essential to the success of such cooperative efforts, and points to the possibilities inherent in such a form of union-management relations.

The first matter of importance is motivation. This experiment had a very bad start in this respect. The first setting up of the cooperative plan was due to the business agent of the union being threatened with the loss of his leadership, and a tendency for the workers to drift into an antagonistic attitude towards the company. It was therefore not a spontaneous movement on the part of employees or of management.

In the second stage of the movement, the joint research, again the business agent of the union was in difficulty and sought a way out. Employees accepted the plan without understanding it, because it seemed to be the only thing to do, and management accepted it, without fully realizing its implications, because on their side it seemed the only way to get a reduction in costs.

This lack of real desire for mutual cooperation on the part of employees and management was throughout a serious handicap, because there was no underlying will to agree.

Educational Opportunities Overlooked

BASICALLY also the problem seems to have been one of education. If during the prosperous years, after the formation of the union, management had tried to get employees to understand that their stake in the company and its success was as large as that of the stockholders; and if over a period of years, when there were no reasons for strained relations, had educated employees in the joint responsibilities of employees and management and the need for concessions by both parties then the groundwork would have been laid for a true cooperative movement on a broad base. (Education of operating executives and supervisory force would have had to parallel the employee education.)

But even without this planned building of sound employee relations from 1919 to 1926, it is entirely possible that had both union officials and mill officials appreciated the need of education of those they led, during the first two years of cooperation, the second phase would have had smoother going. This not being realized,

There was again an opportunity for keeping employees informed during the joint research stretchout program. But again the opportunity of going thoroughly into the whole significance and method of the program with the rank and file of the workers, and with the operating executives of management, was overlooked.

Without these bulwarks, the strains of the depression finally broke up what had promised to be a very fine experiment in cooperative collective bargaining.

This is a reprint of a report on this experiment published by the Yale Institute of Human Relations.

The National Labor Relations Board announced on July 10, 1939 that a secret ballot election would be conducted among the production and maintenance employees of Naumkeag Steam Cotton Company, Salem and Peabody, Massachusetts. These employees will vote to determine whether they desire to be represented by Independent Sheeting Workers of America, by Textile Workers Organizing Committee, (CIO), or by neither. (The CIO Union won by a

unanimous vote.)

VI. Planned Group Relations

One final case study is of a company, the management of which deliberately studied ahead of time the sort of collective bargaining, that seemed wisest to encourage in terms of philosophy, policy, and union relations.

Management concluded as a result of studies that the minimum of discipline required that there must be order-givers and order-takers; that the order givers should be selected by those best qualified to select them; and that managerial policy should be devised by persons best qualified to do so, by financial experts, sales experts, production experts, labor experts, etc. Each group should do its own job, correlated with the work of others, but not interfering with it. Interference by the union in strictly management matters was avoided.

After deciding what were the minimum essentials for discipline and efficiency in the organization, management then turned to a consideration of the extent to which democracy could be established, and the sort of policies that could be influenced by the workers through democratic processes. It was felt that if the plan were properly worked out, workers would adopt a cooperative attitude.

Joint Committee Management

THE policy adopted was that workers should be taken into the fullest partnership in all matters which *directly* affected them, and in which they would therefore be competent to form sound judgments.

A joint committee of management and workers was entrusted with setting up factory rules, and with making subsequent amendments. An appeals committee of workers and management, under an impartial chairman, was set up to deal with grievances arising out of these rules. The work of this committee was final, overruling even the company's Board of Directors.

This absolutely blocked the type of employee who might bleat that he was unfairly treated by the foreman or the company, for he immediately met the reply, "If you aren't satisfied, why don't you go to the appeals committee?"

Problems of dishonesty were also dealt with by a joint committee of workers and management, cases of suspected dishonesty being turned over to this committee for investigation and discipline, subject to appeal to the appeals committee.

Workers Consulted on Foreman Selection

BELIEVING that the workers, mostly on piece rates, often knew as well as management the man who would make the best foreman, who would run their departments best, and who would prevent work stoppages and inefficiency leading to low output and low wages, the company agreed that appointments of foremen by management should be subject to ratification by union shop stewards.

Many companies at the present time, would regard this method as very radical. Even the company reported on here reserved, in top management, a final right to override selection of a foreman under this scheme. It has never been compelled to exercise the right. As a matter of fact, all companies with good industrial relations are careful in their selection of foremen to make sure that those chosen will be acceptable to workers, for they know they cannot get the best work out of employees bossed by unpopular foremen. So it might not be such a radical step as it would appear at first glance, to go further, and actually consult workers on such appointments.

In the clothing industry and the West Coast paper industry, it has been found that workers blame managements that appoint foremen who do not know their work, and are not able properly to manage their departments. In many instances, small clothing manufacturers go to the union, and ask it to suggest the best man for a foreman's job. In the West Coast paper industry the union is consulted on the appointment of foremen.

Union Approves Foreman

THE appointment of foremen, subject to shop-steward approval, in the company mentioned above, was in accordance with management's belief in giving the job of selecting order-givers to those qualified to make the selection. It was an admission by management that workers, being in direct touch with their foremen and with their foremen's work, are certainly as well qualified as management to select them.

Because of the importance of shop-stewards in the entire union setup, in the representation of workers, and in the presentation of their views and grievances, management went so far as to promote with union consent the local union president from a production job to a position in the labor relations department, as chief shop steward. He has done a good job for both workers and management as evidenced by the fact that he has held his labor relations job on the company payroll, and meanwhile has been annually re-elected to his union presidency for 18 years.

Basic wages in this industry are negotiated on an industry-wide basis, but piece rates, jobs paid above minimums, and time studies are worked out locally by a joint worker-management committee.

Workers Have a Sense of Responsibility

OTHER matters in which management has considered workers directly affected and therefore competent to form sound judgments are profit sharing, the unemployment insurance plan of the company, sickness insurance fund, pension fund, widows pensions, and death benefits. Workers are therefore represented on committees governing these functions.

In recreation activities, the company provides facilities such as grounds, tennis

courts, and meeting halls, but leaves the control and financing of the activities themselves, to employees.

This company has gone far—much farther than many companies would be willing to go—in granting self-rule to workers. But it must be remembered that this plan has been developing for 20 years, and that every innovation has been made cautiously, and with proper safeguards.

This plan is cited here to illustrate an approach to labor relations in which a company deliberately studies the type of collective bargaining relations it thinks will work out best for both employees and company, and gradually moulds policies and practices in accordance with this plan.

It would appear from this company's experiment that under such conditions workers show a much higher competence and sense of responsibility than they are usually given credit for. It is further apparent that when they have a share in making decisions about matters directly touching them, they do not tend to interfere in executive and administrative problems which are strictly the function of management, and on which, because of their limited opportunities for knowledge, they are not so competent to form sound judgments.

It would certainly not be proposed that a company should forthwith try to copy this scheme. But it is suggested that companies by research can determine the type of labor relations best suited to their needs, and in the best interest of employees. They can then set to work on the difficult—but certainly not impossible—task of building such relationships. It does not seem that there should be unalterable opposition on the part of labor to such a development.

The Employee Must Recognize that Seniority Rights are Not Equivalent to Perpetual Rights of Employment. He Must Realize that Although He May Insure His Home against Loss by Fire—He May Not Set Fire to that Home.

Seniority Plans

By R. DOUGLAS DAUTERICH

Consolidated Gas Electric Light and Power Company,
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THE seniority principle is as old as the employer-employee relationship itself. It runs through many time-honored company policies such as pension plans and sick benefits and is often a controlling influence in the every day relationship of employer and employee.

However, the most frequent application of the seniority principle today has to do with a preferential treatment of employees in connection with lay-off, rehire and promotion based on their relative length of service. In addition to length of service, various other factors such as merit, ability, family status, physical fitness, and place of residence have come to be thought of as a part of the seniority principle.

Employers Started Seniority

IN A discussion of seniority, one of the first questions which arises is why seniority is considered important and from whence this consideration derived and developed.

The employer was undoubtedly the first to recognize and apply the seniority principle by encouraging continued employment. Continued employment reduced labor turnover and consequently the employee's increased ability, resulting from training and experience, was available to the employer. Likewise, the investment represented by the cost of training was protected, and the added cost of constantly retraining new employees was reduced. Furthermore, it was felt that a long service worker was more likely to be loyal and consequently more concerned with the best interests of his employer. In a large measure this approach is quite sound and many

companies have seen mutual benefits for employer and employee redound from its application.

Now Labor Advocates Seniority

TODAY, organized labor advocates the seniority principle and is promoting its application as a kind of insurance policy. Labor's objective in this matter is twofold 1) the protection of older workers and 2) the protection of all workers against discriminatory treatment by supervisors. I believe it can be honestly stated that in general this protection is not sought against management, but rather is directed at lower level supervisors. As a matter of fact, in this day when many industries have grown so large that the average worker loses all contact with management, the greatest appeal of a seniority plan for the worker is to assure him a "day in court" with management as a protection against the summary actions of a prejudiced supervisor.

In the formulation of a seniority plan the following points must usually be given consideration:

1. Who is to be covered by the plan.
2. The basis of the plan, i.e. whether plant-wide, departmental, etc.
3. What is to be affected by the plan, i.e. lay-off, rehire, etc.
4. Determining the various time elements of the plan.
5. What qualifying factors shall be considered in addition to length of service.
6. How seniority rights may be terminated.
7. How seniority rights are affected by promotion or transfer.
8. Whether to include a division of work program as a part of the seniority plan.
9. The display of seniority rules and lists.

Those Usually Excluded

THE question of who is to be covered by a seniority plan may be answered by determining who is to be excluded from it. In most industrial organizations the following are excluded:

1. All individuals identified with management down to and including the level of foreman.
2. Office of clerical employees.
3. Watchmen.
4. Temporary or probational employees.
5. Apprentices.

Some question may arise as to the exclusion of so called working foremen. The decision in such cases must be an arbitrary one at best. One organization met the situation by actually determining for each working foreman the average time spent in the performance of manual labor as compared with the time spent in a supervisory capacity. In cases where it was found that the greater amount of time was spent in a supervisory capacity that individual was excluded from the plan.

Although apprentices are shown here as generally being excluded from seniority plans, often there is an insistence that they be included. If apprentices are included, it is recommended that they be handled as a separate unit. Obviously apprentices are usually relatively short service employees, but at the same time the cost of training them represents an investment which should be guarded. Consequently, it would be highly undesirable to be forced to lay-off all apprentices at the outset of a receding business condition.

Determining the basis or scope within which seniority rights shall prevail for each employee is one of the most difficult problems involved in the whole question of seniority. Generally, the selection of a basis will be limited to one of the following:

1. Plant-wide.
2. Departmental, or a unit of plant or department.
3. Occupation.
4. A combination of department and occupation, plant and occupation, or plant, department and occupation.

Plant-wide seniority alone, although relatively easy to administer, is usually only adaptable to the simplest type of operation. On the other hand, a strict application of departmental seniority frequently causes difficulty when work falls off in one department and remains constant in another. Here the employer may be faced with laying off long service employees in one department and retaining short service ones in the other.

Occupational Groupings

OFTEN, in an attempt to facilitate administration, there is a temptation to create a unit by grouping various occupations or departments for which labor is felt to be interchangeable. This approach can have serious consequences later, if, when it is necessary to lay-off some workers it is found that those who remain are not capable of performing the work of those laid off. Even where, for two or more occupations, the workers are somewhat interchangeable it is undesirable, in my opinion, to adopt a seniority plan which causes a great deal of shifting of employees during periods of fluctuating business.

Often a supervisor's intimate knowledge of the various abilities and inabilities of the workers under his supervision is invaluable in boosting the overall efficiency of a unit, and much of this value is lost where employees are continually shifted from one department to another.

In the final analysis the basis of seniority must be patterned so as to best meet the needs of a given organization with due consideration to the peculiarities of its operations. The basis should be logical and understandable to the employee and subject to the least possible difficulty of administration.

Seniority Should Not Affect Promotion

MOST seniority plans allow seniority to have a bearing on all or some of the following matters concerning employees:

1. Lay-off
2. Rehire
3. Promotion
4. Transfer
5. Preferred job

Obviously, a seniority plan should have a bearing on lay-off and rehire. However, in my opinion, seniority should have little if any bearing on promotion. It must be realized that a seniority plan has the effect at times of reducing the initiative of some employees. Therefore, to offset that condition, it should be generally known that promotions are based on merit and ability. Some might argue that merit and ability develop with years of service, but, although this may be true in some instances it is just as often untrue.

"Preferred job" refers to those situations where, within a given group or occupation, certain jobs are not as desirable as others because of some objectionable working condition. Some plans allow the employee with the greatest seniority, among those on objectionable jobs, to move to a preferred job when a vacancy occurs in that category.

Probation Period Excluded

THE time elements in seniority deal with length of service expressed in terms of years, months and days. Because these elements are subject to being stated in definite terms and conditions, they should be clearly recorded in a well formulated plan. Many plans provide that the employee must spend a certain period of temporary or probational employment (varying from two weeks to one year) before he is eligible for seniority rights, but having served this period his seniority dates from employment.

Usually periods of employment during this probational period are cumulative regardless of intervening lay-offs. The fixing of an interim period of probational employment prior to seniority rights is highly desirable in that it affords an opportunity to properly appraise new employees. This opportunity should not be overlooked or treated lightly, because those who favor a strict application of the seniority principle assume as a premise that an employee's being on the payroll is self-evidence of satisfactory performance of work. In this connection it seems appropriate to point out that many potential seniority problems might never materialize if careful attention is given to the adequacy of employment procedure together with an active follow-up of all employments to insure that the proper selection has been made.

Generally, seniority rights "bridge the gap" of periods of sickness, leaves of

absence or lay-off, provided such breaks in service are not of a duration longer than a specified time (usually one year). Of course, such periods of absence from the job are not credited to the employee's service.

Other Qualifying Factors

AS PREVIOUSLY stated, various qualifying factors in addition to length of service have come to be thought of as a part of the seniority principle. Some of these factors as they appear in various plans are:

1. Merit and ability
2. Physical fitness
3. Family status, number of dependents
4. Place of residence
5. Fitness for work
6. Character
7. General reputation
8. Energy

All too often these factors are injected into seniority plans with the idea that they furnish a "loophole". There is probably nothing more fallacious than this idea, for when it becomes necessary to administer the plan these factors do not "stand up" and consequently the whole consideration frequently depends on the one factor which is measurable and unalterable, namely length of service.

Factors that Should Be Excluded

OF ALL of these qualifying factors, merit and ability considered as one factor is probably the only one which may be linked appropriately with length of service, and even here it is almost imperative that this factor be measured by a tried and tested employee merit rating device which has the respect of all concerned.

Physical fitness should certainly not be considered a factor since it is usually an original and continuing condition of employment subject to periodic check and appropriate action at all times.

An attempt to recognize family status as a factor may be very desirable but is certainly impracticable as to administration.

Place of residence is certainly of no consequence; and character, general reputation, energy, and other similarly vague factors should never be included in a seniority plan because they are not measurable.

Loss of Seniority Rights

IT is customary for seniority to be terminated as a result of any one of the following causes or conditions:

1. Discharge.
2. Resignation.
3. Not reporting for work when notified.
4. Lapse of employment in excess of an arbitrarily established period.

The provision pertaining to not reporting for work when notified may apply under several circumstances. It applies when the employee fails to report when notified following a period of lay-off. In this case the assumption is made that he has obtained other employment or no longer desired employment with his former employer. The provision may have a stricter application where it is used to promote and insure prompt response from employees in industries which are faced with frequent and irregular fluctuations in employment.

Usually a lapse of time between periods of employment, varying from three months to one year, suffices to terminate seniority. The object of this provision is to place a limit on the employer's obligations to former employees, it being obvious that this obligation should not run indefinitely. The question of what effect promotion or transfer should have on seniority is a debatable one. To illustrate this point consider the case of a helper with five years of service who is promoted to a higher rated occupation. If he is allowed to retain his five years' seniority rights in the new position, he may out-rank employees with less seniority who have been hired directly for the job, and who may be obviously more valuable. If on the other hand, he is forced to go at the bottom of the list for the new occupation, he loses the effect and benefit of his previous service. Neither of these conditions is satisfactory to all concerned, and therefore, it seems to me that the situation demands some compromise between the two approaches.

Goodrich Company Plan

THE seniority plan of the B. F. Goodrich Company is an example of one such compromise. Briefly this plan is as follows: The new employee is placed on probation with no seniority rights until he has completed one year of service in the department in which he was employed. Upon completing this probational period, he becomes a "resident" of the department, with seniority dating from his original employment. If he is affected by lay-off in his resident department, he may displace, if qualified, a probational employee in any other department of the company. If he is transferred or promoted, he must serve a year in the new department, without seniority, before he becomes a "resident" of it, but in the meanwhile he retains his resident seniority in his former department. When he becomes a resident of the new department his seniority again dates from original employment.

If the employee *requests* to be transferred, he must likewise serve a probational period in the new department before becoming a "resident" but in this case he does not retain seniority in his former department, but *is* credited with full seniority after his residence has been established in the new department.

Difficulties of "Share the Work"

IN SOME cases, a division of work or "share the work" program has been made a part of seniority plans. Such plans usually specify that when the volume of work declines, probational and temporary employees will be laid off and the work

will be spread among the remaining employees by reducing the normal hours of work. If and when the reduction of hours reaches a specified minimum, then additional lay-offs may be made according to seniority. At first thought, this type of plan seems equitable and desirable, but experience has shown that it can only be administered properly in those organizations where planning of production is possible, and where the work, although reduced in volume, remains steady as to pressure. For organizations where the volume of work fluctuates greatly, because of unforeseen and fortuitous factors, the administration of such a plan is made difficult because of the disputes which arise concerning the proper apportionment of work.

The question of whether or not seniority rules and lists should be displayed for employee scrutiny is open to debate. In actual practice it has been found that the advantage of displaying such rules and lists lies in the fact that discrepancies and complaints can be handled immediately when adjustment is usually easier. Whereas, without display, discrepancies often do not come to light until seniority rules are being applied, at which time an adjustment of the error may cause an additional problem of administration.

Breeding Ground of Mediocrity

SENIORITY has been called "the breeding ground of mediocrity". This need not be true and will not be true, unless the employee is allowed to get a distorted idea of the protection afforded him by his seniority rights. He must be made to recognize and understand that seniority rights are not equivalent to perpetual rights of employment and that certain actions or behavior on his part will serve to nullify the effects of seniority entirely.

He must realize that although he may insure his home against loss by fire—he dare not set fire to that home. Nothing should be allowed to give an employee an impression other than that he is expected at all times to perform his duties to the best of his abilities and in accordance with the rules and regulations laid down by his employer.

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A Well-developed System of Union-employer Negotiations with Permanent Boards, either Bi-partisan or Impartial, Will Put an End to a Multitude of Disputes which, if Not Settled, Might Grow to the Proportions of Large Strikes.

War Effects on Labor Relations.

By CHARLES S. SLOCOMBE

Personnel Research Federation

WITHOUT desire or intent to enter the business forecasting business, we think it would be well for industrial relations men to plan to meet any eventualities.

As far as can be seen at present, with some exceptions, there seems to be time to do this job now, without unduly hurrying. The three most serious problems, which may start to hit industry next spring are a shortage of trained labor, demands for high wages, and strikes. So we need to see how we can prepare to meet these problems.

Strike Peak Comes in May

WE SUGGEST next spring as the time these matters will open up, for two reasons. Statistics of strikes, which are indices of labor pressure and industrial dissatisfaction, over the last fifty years show that the strike wave follows the weather curve. Strikes start to fall off in the fall, go to a low in the middle of the winter, and start up in the early spring reaching a peak in May, and a secondary peak in September.

On this basis we have till next May to make our preparations to avoid trouble.

Our second reason lies in the field of economics, and suggests that it will perhaps not be till spring before business generally takes on real boom proportions, and prices rise substantially. We quote from Dr. Wesley C. Mitchell's "The History of Prices During the War" (last war).

American business was passing through a period of depression when war broke out at the end of July 1914. Immediately the financial machinery of

the world was thrown into wild disorder. . . . These financial disturbances gradually subsided but they served to intensify the commercial and industrial depression. The first changes in commodity prices caused by the war in this country arose from speculative anticipations of alterations that would come in demand and supply. The sharp advances during August 1914, in the prices of sugar, grains, spices and fibers had this character. Many of the rather panicky apprehensions proved to be mistaken or at least premature, so that the prices which had bounded up suddenly subsided again in September or October. . . . After this flurry the index number settled at its pre-war level and remained there during the first six months of 1915. . . .

It was the impetus from the other side that finally started the wartime rise in this country. When England and France placed their first large contracts in this country, American manufacturers were in a peculiarly favorable position to fill them promptly. . . . Industry was depressed. Therefore equipment, men, and materials could be had in abundance and at moderate prices. . . . By the end of 1915, American prices had begun to mount rapidly and a business boom had started. In 1916, the activity gathered momentum in extraordinary fashion. . . . When the United States entered the war, accordingly, business was at high pressure, and prices were already about 60% above their pre-war level.

Trained Worker Shortage

OUR first problem will be shortage of trained workers, and particularly skilled workers. One thing companies should avoid at all costs, and that is raiding each other for these men.

In the 1937 upturn, for example, one company in New Jersey, exhausting the supply there, sent its employment managers up into New England and raided the airplane and machine tool industries there for skilled workers. There was considerable public feeling in all the towns, and in some cases the employment men were run out of town.

Wages of course had to be bid up high, upsetting normal differentials, the workers were exceedingly independent and hard to manage, and of course, had plenty of money, so that it did not bother them much to throw a few dollars to the union in payment of dues.

Personnel men will have to plan ahead to avoid this. How may it be avoided?

(1) Set to work right now, with the production departments, to survey your future labor needs for next year, on perhaps four bases; (a) assuming no pick-up in your business, (b) assuming 10% increase, (c) assuming 25% increase and (d) assuming 50% increase.

(2) Work with your engineering and planning departments to develop plans for changes in production methods, so that semi-skilled workers can do some of the work formerly done by more highly skilled ones. This of course is being done all the time, but a special effort to increase it will be needed now.

One large company has already done this, and worked out its plans so that,

with a substantial increase in business, it does not expect to have to hire any skilled workers, unless it is raided.

(3) Plans for training workers for the newly designed jobs should be drawn up.

(4) Jobs should be studied and classified, so that the ones requiring the same basic skills will be known, and rapid transfers will be possible.

(5) Sources of supply, such as trade and vocational schools, and the WPA should be contacted, and helped as much as possible to get ready for calls for trained workers.

Consult with Union

IF YOUR plant is organized, either on a closed shop basis or only partially, start talking these things over with the union, so that they may go along with you in these moves, and as far as they can help you.

This is particularly important. In this connection we recommend Elliott Dunlap Smith's recent book, "Technology and Labor" (Yale University Press, \$2.50). While Smith's studies relate to job changes in the textile industry only, they show that where there was inadequate planning, and no contact with employee representatives, strikes, delays and bankruptcies resulted. He includes in his appendix useful check lists of the points to watch in making job changes.

Wage Question a Headache

THE wage question is going to be a big headache which ever way you look at it. In the boom of the twenties wages went up faster than prices and the cost of living, so in collective bargaining labor officials and employee representatives argued for higher wages, on the basis of prevailing rates. Management argued against raises on a cost of living basis.

When we started to come out of the 1933 depression prices went up faster than wages, so labor argued for higher wages on a cost of living basis, while management took over the prevailing rate theory in resisting wage demands.

Who is going to do what this time?

If all the companies which take the PERSONNEL JOURNAL, and employ close to ten million workers, resolve not to raid each other, there would still be plenty of raiding done. This, as we pointed out above, will sky wages of some workers, and upset differentials. This means that prevailing rates will be a factor in wage demands.

If prices rise substantially, then wage increases for all workers cannot be avoided.

In the circumstances the following suggestions may help minimize difficulties.

(1) Avoid raiding yourself, and working through your trade association and local Chamber of Commerce try to get other companies to avoid it also.

(2) Make sure that you are in a position to have available the most accurate information possible, as to prevailing rates, and cost of living figures for your com-

munity, so that wage rates may be determined on a factual basis. Very much improvement in both these sets of statistics is necessary if bitter arguments, bad feeling and pressure tactics are to be avoided.

(3) Some have suggested that labor be persuaded to accept a "war bonus" in lieu of straight wage increases. As we are not in the war it is difficult to see how labor can be gotten to accept this idea, except in the case of seamen going into war areas or subject to special hazards.

Cost of Living Allowance

WOULD labor accept the idea of a "cost of living allowance" in lieu of straight increases? It would seem that this would be the best plan theoretically, if there is not too much raiding. It has the merit for a labor leader, who looks into the future, that his job will not be endangered, by having to accept wage cuts on behalf of his constituents when it is all over. For reasonably paid workers, where the industry can stand it, a cost of living wage basis seems fair.

Companies should avoid giving extra raises to try to keep unions out. Many who did this a few years ago found that it didn't keep the union out, and when the union came in they had to give a second raise. If you are paying reasonable wages at prevailing rates the only way the union can get you is because you have some faulty personnel practices. If you have a desire to keep the union out spend your money on cleaning these up.

The Double Double Cross

SOMEONE suggested that if faced with a wage demand by a union leader you should trade him "no wage increase" for some other concession, such as a "closed shop." This just sounds like a double double cross.

If you have a union in the plant, either affiliated or not, start talking these matters over with the leaders right now, or get your relations with the union in such shape that you can as soon as possible. Put the whole thing on the basis that these are difficult problems, and the union and the company want to work things out to the best interest of employees and the company. You may have to go to the international officers of the union, rather than to local leaders to do this, if you have an affiliated union in the plant.

In view of the limitation on hours of the Wage Hour Act, you may find it possible to fatten pay envelopes, without raising wage rates too far, by giving a certain amount of overtime.

Two Big Strike Factors

OVER the last fifty years, during which strike statistics are available, in numbers, severity and duration strikes have been determined by two dominant factors, (a) the business cycle, particularly the price element in it, and (b) a strong interest

on the labor movement on the part of the government. All other factors have been held to be contributory only.

Strikes also do not decline with unionization. The greater the degree of unionization the more strikes there are. Statistics show that unionized workers are twenty times as liable to strike as are unorganized workers.

Thus the expectation of many industrial disputes during the coming upswing has a sound basis.

The main factor which reduces this hazard is public opinion, in so far as this determines government attitude. There is evidence that unions have alienated much public opinion but this has probably not gone far enough to do more than act as a slight break on the strike rate.

In the circumstances what are we to do?

(1) In many ways it may be said that, when the personnel practices of a company, including the setting up of sound wage and working conditions, are faulty, the employees get together and hire themselves a personnel man of their own, in the guise of a union leader. If they have done this in your company, the best thing to do is to try to understand this fact, and the problems with which he has to deal. You don't have to solve his problems for him, but if you understand them you have a chance of coming to an agreement with him, so that he does not have to strike you to make you understand.

Why a Closed Shop

THESE problems of union leaders are many, and various. For example we recently talked with a responsible labor leader, whose policy is to get along with the company, and he plainly stated that the union intended to strike a large company for a closed shop. His reason was that, though the head office of the company was fully desirous of working along with the union, district plant managers were disloyally trying to sabotage the agreement, and kick the union out.

The union leader agreed that it was really too soon in the proper development of the union to have a closed shop, but that the only way it could be avoided was for the company to bring its major supervisory men into line with company policy, and thus avoid both the closed shop and a strike.

Such a situation is a tough nut for any personnel man to crack, even if he knows it exists. But the case is brought up to illustrate the absolute necessity of the personnel man having such relations with union leaders that they know immediately what is bothering them, and can work the problems out in advance, before things become too hot in the summer strike peak.

(2) If you do not have a union, and don't want one, go over your personnel policies thoroughly to see where there are chances of trouble.

The Psychological Blind Spot

IF you have any doubts about the matter get an outside opinion from a consultant or other competent authority. For it is very hard to judge something you are in the middle of and have developed yourself. You may have a psychological blind spot in regard to certain matters.

In the past we have visited companies, and felt positive that they would be unionized on the first union wave that came along. In some cases it seemed that a strike was inevitable, unless corrective measures were taken. Once or twice we tried to tell the companies about it, but were disbelieved and narrowly avoided arguments. Subsequent events justified our expectations.

Sometimes of course the personnel man knows the trouble, but can't do anything about it. An outside consultant will spot possible trouble, and back up the personnel man in remedying it.

(3) Many companies have developed elaborate seniority rules to deal with layoffs. These will now have to go in reverse, and be used for rehiring. Are they going to be suitable, particularly when you start hiring skilled men at high pay, and try to fit them into the seniority roster? This subject should be looked into well ahead of hiring.

(4) Study the various setups that have been developed to avoid and settle disputes, such as industry wide agreements, joint boards, permanent arbitrators, the Toledo plan, the San Francisco Council, etc., so that if trouble looms you have at hand not one, but many, possible ways of avoiding it. The more ways you know of solving a problem the better chance you have of doing so.

Develop Union Management Coöperation

START as quickly as possible, with your union, whether affiliated or otherwise, to develop some union-management coöperative relation. This may be formal or informal, and if the former, should be drawn up as a separate agreement from your collective bargaining one. But the essential thing is to set up machinery for joint consultation and put it into action.

Times are going to be difficult enough, and if labor unions are told that their only business is grievances, wages and hours, there will be plenty of grievances, strikes and sky high wages. If they are brought in to help solve problems, rather than create them, we have a chance of coming through the period with some of the above dire forebodings unrealized.

The Habitually Slovenly Fellow Can Temporarily Inconvenience Himself by Having a Shave and Putting on a Tie. The Surly Fellow Can Assume a Winning Smile While being Interviewed or Tested. But What do These Things Prove in Terms of Future on the Job?

New Method *of* Interview Hiring

REVIEW AND EXTRACTS FROM REPORT
OF SAMUEL H. ORDWAY, JR. AND
JAMES C. O'BRIEN

Washington, D.C.

FOR years we have known that our hiring, particularly for executive, administrative and sales positions, was very much a hit or miss business. Recent studies indicate that we may be able in the near future to use a new technique that will overcome some of our present troubles.

The main difficulty is that, for such positions, we must get some measure of intangible character qualities, such as initiative, ability to get cooperation, tact, etc. So far there have been no written tests for the measurement of these qualities, and perhaps there can never be.

Review of Report

SO we have had to rely upon the impressions gained in interview. All psychological checkups on the results of interviews prove their subjective nature, particularly revealed in the fact that there is almost no agreement among a number of interviews in their measure of the characters of applicants for jobs. And we hire many who do not measure up to the job.

The recent experiments with overcoming this difficulty have come about through law courts refusing to admit the validity of interview results, as measures of character qualities of applicants for government jobs.

While business and industry is under no legal obligation to be scrupulously fair in hiring people, and there is no chance of a company being brought into court by a turned-down applicant for a job, on the grounds of unfair hiring methods, yet we all want to do the best hiring possible in our own interest. A method that is designed to pass rigid court scrutiny should therefore interest us.

In one case a candidate for an executive position was flunked by a board of examiners in interview—or oral test, as it is called—on the grounds that he did not show “administrative ability.” He took the case to court, and the judge held that the interview as conducted was based entirely on subjective impressions, that no proper test of administrative ability was contained in it, and that there was no evidence that another set of examiners would evaluate the candidate in the same way.

Several other such cases were won in court by flunked applicants.

Mr. Samuel H. Ordway, Jr., New York attorney, who was at that time serving on the New York Municipal Civil Service Commission, set to work, with the aid of others, to see if there could not be worked out a method of interview which would satisfy the courts that it was an accurate and reliable measure of the character qualities needed for certain positions.

Seek Evidence of Abilities

THE method, in essence, consists in requiring the applicant for a job (where such qualities are of prime importance) to describe out of his own past experience situations in which he has exercised ‘tact’ or ‘obtained cooperation from others,’ etc. In the interview he is then questioned, and cross examined to help him bring out the full facts of this past experience, and to catch any exaggerations or falsifications there may be in his recital. The admissibility of applicants descriptions, and the value to be placed upon them is then judged as nearly as possible according to the rules of evidence, such as might be used in a law court.

We think the method would, even perhaps in a modified form, prove of great value to sales organizations, banks, utilities, and other business establishments, as well as to industrial companies, when they have to hire specialists and executives from the outside.

We therefore publish, with permission, extracts from a pamphlet describing the method in full. (An Approach to More Objective Oral Tests, by Samuel H. Ordway, Jr. and James C. O'Brien. Obtainable from the Society for Personnel Administration, Washington, D. C. Price 25¢.)

Extracts from Report

TESTS of personal attributes are considered essential for administrative and professional positions. Written tests do not readily reveal these personal attributes. Various forms of oral tests have been tried as a method of measuring personality. But oral tests have long been the most subjective of tests used in the selective process.

The present discussion deals with a series of experiments—as yet not concluded—to improve the technique of the oral process as a method of measuring evidence of personal capacity to perform effectively in particular positions. These experiments have sought to isolate essential factors of personal capacity which can be

evidenced reliably. They have sought to evolve a method of adducing evidence which is relevant to the factors, and competent as a basis for measurement. They have sought to develop a standard for rating this evidence which is reasonable and reviewable.

In a field as broad as personnel selection, controlled testing of any new technique, as well as improvement in the technique itself, is necessary before claim to effectiveness is justified.

No one technique, of course, can solve all problems of examining. The experiments described herein are limited in scope to a particular objective: adducing factual and measurable evidence of the possession of essential personal capacities that can not be adequately measured in other ways.

Factors That Can Be Evidenced

PREDETERMINATION of factors to be evidenced has been skipped over too often in the past. We start with the premise that only those demonstrable elements which cannot be tested adequately in written or performance tests should be included as factors in the oral examination. The factors so to be included should be only those which reveal fitness or unfitness for the position in question, and only those which can be evidenced reliably.

The selection of factors of qualification should begin with a thorough analysis of the requirements of the position to be filled. We should determine all of the factors which will evidence fitness for the particular duties, and should allocate to each primary subject of examination (experience, written or performance tests) all of the factors which can be rated under that subject. If there remain necessary factors of personal capacity which can not be tested otherwise than by oral examination, the next step is to break down these remaining factors into their distinguishable least component elements. This breakdown or itemization is essential to ascertain what each item is worth in revealing personal fitness for the particular position, and *also* to ascertain whether or not it can itself be evidenced reliably.

Generally, too much has been expected of the oral test in the past. There has been a tendency to list a wide variety of inclusive adjectival terms—characteristics or traits of personality—without careful itemization and without adequate consideration of the relevance or probative value of each such so-called factor and without adequate consideration of whether or not that factor can be objectively evidenced.

Small Value of Inclusive Adjectives

GENERAL factors frequently used in oral tests have included: Appearance, Poise, Speech, Manner, Judgment, Force, etc. When we seek to break down or itemize these inclusive terms, the absurdity inherent in their over-all use becomes evident.

What are we seeking to measure under the word "Appearance"? It may be that the examiners expect to consider posture, facial expression, neatness of dress, cleanliness, or similar items which taken individually or together will influence the examiners' conclusion as to whether or not each applicant has an "adequate appearance."

For some positions some of these component elements are substantially unimportant; for some positions one or more of the components may be important and indeed decisive. Adequate diction is essential for a telephone operator, gestures irrelevant. Cleanliness is essential for a cook, facial expression irrelevant. "Some of the 'best' cooks are lugubrious." Itemization is necessary to avoid confusion among examiners, to enable us to know what we are looking for, and to determine whether it is worth looking for.

Measure Ability to Get Results

ALTHOUGH some of the foregoing items are essential to some jobs, for the vast majority of administrative and professional positions over-all observations or conclusions as to Appearance, Poise, and Speech fail to reveal fitness or unfitness. At most we can say that "good" Appearance or "adequate" Poise or Speech *may* aid its possessor in performance of certain duties and that weakness in any of these regards *may* be an obstacle. But such aids and obstacles are often inconclusive in action; despite the aids, there may be failure of performance; sometimes hindrances may be turned to advantage. What we wish to rate is evidence of the applicant's capacity to accomplish results on the particular job, not evidence of *potential* hindrances or aids which may or may not affect performance.

First, then, in considering whether or not to include a factor, we should consider what it is worth as evidence of fitness for the particular duties and requirements of the position.

Measurement Must Be Reliable

HAVING done this, we must next consider whether the factors proposed, item by item, will yield to reliable measurement. The factors listed above, which have been most commonly selected in the past, have been evidenced generally by observation. Where such factors have been itemized sufficiently to enable examiners to know precisely what they are looking for, and the items are actually apparent, evidence by observation is objective; but as a basis for measurement, it may still be unreliable.

For example, let us assume that we consider the components "neatness" and "facial expression" relevant to the job of Reception Clerk. A candidate, aware of the requirements, will readily adapt himself to the exigencies of the situation. The habitually slovenly fellow can temporarily inconvenience himself by appearing smartly dressed and well-shaven. The surly fellow can assume a winning smile

and engaging attitude for the hour or more required for the oral test. But what do these things prove in terms of the future on the job? Nothing more than that at a given place and at a given time the applicant was well-dressed, and otherwise presented the appearance predetermined by the examining board as desirable.

Evidence by observation may be unreliable, also, because there is no standard or agreement as to the significance or meaning of each varying detail observed.

Accordingly, the present approach to the oral process seeks to avoid over-all factors such as "Appearance" or "Manner" which are so inclusive in scope that it is necessary to combine interlocking observations of varying components to arrive at an estimate of their existence.

Likewise, the present approach seeks to avoid as factors personal characteristics such as neatness and dignity which depend for establishment—even before evaluation begins—upon subjective interpretation of observations.

What Has the Applicant Done?

THE present approach takes the position that personal fitness for different positions can be evidenced more reliably on the basis of *factors of performance* than on the basis of such *factors of personality*.

What each candidate has actually done (performance) can be evidenced factually, and we submit that where *possession of a required capacity* related to performance of the duties of the particular position *has actually been demonstrated in the past*, the demonstration imports possession of subordinate elements of personality requisite to the accomplishment. For example, if one of the requisite factors of performance for a particular job is capacity to obtain cooperation from others, the fact that an applicant has faced difficult situations in which he has needed to overcome opposition and has successfully obtained cooperation (supported by details as to time, place, and circumstance) is evidence of the capacity.

The question of degree—evaluation—is another matter. We are dealing with evidence now. Whatever the elements of neatness, facial expression, or posture which might have hindered or aided in the result, the action speaks for itself. Whether or not observable "Appearance" substantially aided or hindered his capacity in this respect is less important than the fact determined that he has demonstrated, in some degree, the required capacity.

Since the key to successful use of the proposed technique lies in the selection of factors which can be evidenced factually, it is necessary to understand certain fundamental principles of the meaning of evidence and the method of its adduction in the oral process. The long experience of law involving, in the trial of cases, the admission of reliable evidence and the exclusion of the irrelevant and immaterial so that ultimate evaluation of the evidence—the ultimate conclusion or verdict—may be based objectively presents the key to the present approach to the conduct of oral examinations.

The position of the courts, requiring relevant evidence and a reviewable record, is technically sound; for it is built upon the experience of years of adjudicating human rights. Examining procedure should be at least as impartial and objective as litigating procedure, if not more so.

Rules of Evidence

DEVELOPED over years of experience, the principles of the law of evidence stem from simple concepts. The primary concept is that evidence offered in the trial of any issue may vary in relevance and competence. Evidence which is irrelevant to the issue, or evidence which is immaterial or which is so unreliable as to deserve no credence—hearsay and conclusion—or which is not the best evidence obtainable is excluded. That is, such evidence, when offered, is not permitted to go to the jury in a court of law. Upon equally sound principles of justice and logic untrustworthy evidence should not be used as the basis for rating by examiners.

In an oral examination the selection of the factors constitutes the determination of the issues of fact to be determined. Until the issues or qualifications are decided upon, it is not possible to know what evidence is material, what relevant, and what competent. Having defined the factors or issues, however, we are in a position to determine the limitations of relevance and competency of evidence offered to establish those issues.

Examiners Like a Judge

IN AN oral examination the examiners are like a judge who tries complicated issues of fact and law without a jury. The examiners must hear the evidence, determine its materiality, its relevance, and its competence to be rated, and having so determined must disregard that which is incompetent, irrelevant, and immaterial, and award the rating on that only which is admissible.

They must make the ultimate determination of fact—what is the worth of the admissible evidence—that is, they must award the rating as a judge without jury awards the verdict.

The process should be the same—only the need for scrupulous observance of accepted principles of legal proof is even more apparent in a competitive examination than in a trial because the verdict of the examiners not only must be right in substance to do justice in each case, but must in every case stand comparison with the verdict rendered as to every other competitor with whom the individual rated is in competition. Because the conditions are difficult is no reason to relax accepted standards of proof.

Having determined the factors or issues in each oral test, the first function of the examiners in the conduct of the interview is to aid the candidate to place upon the record the fullest possible truthful picture of *what the candidate has done* (with full details as to time, place and circumstance) *which demonstrates possession of the capacity or qualification at issue.*

What the candidate might do under given circumstances, what he thinks he ought to have done, what he would like to have done, what he thinks he could do, many times represent nothing more than mental agility and are irrelevant elements in the proof.

The details of past action constitute the best evidence. Examiners should seek to place upon the record the circumstances surrounding each relevant incident of experience offered, as a setting for the probative facts: *what the candidate did under*

Typical Questions

WHAT did he do which shows initiative, or perseverance? What did he do to obtain cooperation, and what happened? What factors did he weigh before making some decision, and what decision did he make? How long did he vacillate, and what was the effect of the decision made? Facts, facts, facts are what we are seeking. What did he do in preparing a plan? What did he consider? What did he do in seeking to carry through a program once planned, or to adapt the program to changing conditions? What obstacles did he meet? What did he do under the circumstances?

No unjustifiable restriction is set upon oral examiners by requiring them to observe the accepted rules of evidence. The examiners seek to aid the applicants in placing the factual account of their experience upon the record. They conduct the opening or direct examination, helping the applicant to build up his case. In each examination the same introductory questions are addressed to each competitor, and each question is designed to unlock the gates of reticence and memory.

Unimportant Episodes Important

IT is not necessary that every example of past demonstration of capacity be vastly important. Rather the candidates should be impressed at the outset with the fact that minor or unimportant episodes which demonstrate possession of the capacity are significant in proof. As evidence of demonstration of the possession of ingenuity, it may be as significant *under the circumstances* to have persuaded a taxi driver to lend you a dollar to buy gasoline, as to have persuaded the President of the United States to issue a proclamation. The significance will depend upon the circumstances. Facts, not news value, constitute evidence of personal capacity.

The candidate's statements, as direct evidence, are thus placed upon the record. The examiner is now free to follow up the statements offered and to enlarge upon relevant detail of time, place, and circumstance.

Cross-Examination Used

CROSS-EXAMINATION is permissible. This does not mean that the candidate is to be heckled as an adverse witness, but by leading the candidate on into detailed descriptions of the situations presented, with time, place, and names con-

nected, it is possible for a good examiner to disclose misstatements or exaggeration as is done in court. Having adduced the detail of place and circumstance and names of others familiar with each incident, further verification, if needed, can be made by field investigation. By this process factual and verifiable evidence can be adduced; and the evidence so adduced can be recorded by mechanical devices or by stenographic or stenotype reporting of the questions and answers.

This record contains the facts of demonstration of possession or lack of demonstration of possession of the requisite factors and is a reviewable basis for the application of the rating standards.

One objection to oral examinations has been that they adduce evidence of affirmative possession of qualifications primarily, and that they do not adduce reliable evidence of negative characteristics. The process here described when followed through results in lack of evidence of the possession of required qualifications when those qualifications are not possessed or have not been demonstrated in experience.

Selecting a Personnel Director

BUT the process goes even further in revealing lack of qualifications than the mere absence of affirmative evidence. For example, in the examination for Personnel Director the first factor to be evidenced was the possession of initiative, and the candidates were asked to give *examples* of the display of initiative in their past experience. They were encouraged to present profuse examples of ideas, plans, and procedures which they had initiated in order to evidence fully the extent of their initiative. A subsequent factor was the capacity to carry through a program to successful conclusion.

Here the examiners were able to refer again and again to many ideas, plans, and procedures which the candidates had stated they initiated, and to ascertain whether they had carried them into effect or had simply thought them up and then allowed them to lapse. Where any example of initiative had not been carried through, the reasons and circumstances for the failure to carry through were placed upon the record, and this introduced the candidate to further questions of qualification such as ability to obtain cooperation and to adapt programs to changing conditions, and so on.

Having made original assertions of considerable capacity for initiative, verified as to time, place, and details, the door was wide open for disclosure of lack of capacity to carry through which may have been due to lack of will, or lack of caring, or lack of daring, or fear of consequences, or—in some cases—to conditions entirely beyond the control of the applicant. The evidence was spread upon the record of the lack of capacity of the candidate as well as his capacity in respect to the several demonstrable factors.

Unless Marked Changes Take Place in the Thinking of Many Industrialists a Condition may Come in which They will Play the Role of Technological Organizers Only, Leadership of Workers being Lost to Union or Political Leaders.

Right Relations Increase Efficiency

By R. H. SHAINWALD, Executive Vice-President
The Paraffine Companies, Inc.

WE HEAR a great deal these days about personal efficiency. It is something which modern industrial managements seek with a fervor similar to that with which the alchemists of old sought the formula for turning metals into gold.

Until quite recently, it was customary for managements to believe that unionization impaired plant efficiency and soured employee attitudes toward management. Consequently, when we signed agreements with 18 unions in the spring of 1937, it was not without misgivings as to the eventual effect on production costs and employee morale.

Foresaw Higher Costs

IT WAS true that the company had always paid high wages and had been the first firm on the West Coast to grant factory workers vacations with pay and inaugurate other progressive personnel innovations, yet the new labor agreements hoisted its wage scales still higher. It seemed inevitable that higher factory costs and multiple labor relations problems would follow.

To becloud the outlook still further, plant union affiliations were split between AFL and CIO, being about 65 per cent AFL and 35 per cent CIO.

But we had learned through experience in mills and offices that efficient workmanship is not a benefit conferred on mankind without the price of effort, and that the way to get cooperation is to earn it.

We laid the problem frankly before the unions in meetings between the firm heads and union officials and representatives and asked their cooperation.

Next we transferred the personnel department from the manufacturing division to direct supervision of the president's office. The new men assigned to do the personnel work had the confidence of the men, the workers' interests and sympathies at heart, were equipped with technical personnel and industrial relations knowledge and knew how to deal with factory workers in a fair and friendly manner. These men, all of them young, have been given the job of administering the personnel program.

The third step was to weight the established personnel policy and examine its soundness. It did not take long to realize that despite the soundness of the actual policies there were frequently flaws, errors and even worse in transmission of personnel policies from the top executives down the long line of minor officials, including the foremen, to the worker.

Personnel Policy Adjusted

THE personnel policy, intrinsically sound, was adjusted to meet union conditions and reduced to simple words so that any and all might understand. This was printed in a booklet and distributed to the men. Another booklet, known as "The 56-Point Personnel Program," was then prepared. It described simply and clearly the functions and objectives of the personnel and industrial relations departments and their significance to the workers.

With its 56-point program laid down and organized, the company established a number of educational courses for training department heads, foremen and key men that they might be better equipped to handle manpower in meeting the factory operating problems. Top executives contributed their time to lecture to the classes. This sold the foremen on the company's interest in their work; it gave them a feeling of support and a new insight into the broad scope of our business. Thorough courses, of the conference and lecture types, were developed. The company provided the necessary teachers, meeting-space, and other facilities. Each group held meetings once a week—on company time. There were four groups comprising about 100 men in all in the conference meetings, and an attendance of 140 at lectures.

Company Trains Union Officials

THESE educational courses had scarcely been established, when the union representatives themselves asked that similar courses be established for union stewards and union officials. They wished to have an opportunity to acquaint themselves better with their responsibilities and duties of their union jobs—just as the foremen had gained a better understanding of their tasks and were doing superior work. Their request was granted and courses were designed to include the training of union men as negotiators and representatives of their fellow workers through carrying out actual negotiations and grievances as in a mock trial. The union representatives were trained to negotiate from both sides of the table—from

the employers' angle as well as from the employees! This evoked a more sympathetic attitude toward management's problems and methods. These union courses were reinforced by conferences and lectures too.

In addition, the company now undertook a general educational program, by spoken and printed word, intended to interest and inform all employees regarding its operations and problems.

Each employee was furnished with a loose-leaf binder and page by page and chapter by chapter, he was enabled to build up a comprehensive and attractive volume, dealing with the company's affairs—its founding, its step-by-step growth and development, its organization, its products and their uses, its markets, its competition and its problems, both internal and external. The completed volume was called the Pabco Book of Knowledge.

Each week some feature of the company or its products was taken up. These were illustrated with carefully selected photographs or drawings and the necessary facts were told briefly in a few lines of text.

In order to promote a personal interest on the part of the employee a prize winning contest was devised. A set of 4 questions was worked out as a companion piece for each page. The questions were so arranged that they could be answered simply by checking "true" or "false" in the query. A fifth question called for a short resume of the subject in not more than 25 words.

Selling Company to the Union

ANOTHER most important element of one program was person to person communication. At every contact with union men, company representatives did a "selling job of the company." From president and executive vice-president to department managers, this was regarded as a matter of first importance. There was no hesitation about pitching in and doing this job, because the company had made sure its house was in order. The product has to be right before you advertise!

General Personnel Background

IT SHOULD be remembered that the company's new labor policy was built upon the strong foundation of 53 years of fair and friendly dealings with its employees.

Every technical personnel instrument that met the test of workability and acceptance by both groups—management and workers—was applied. They include:

- (1) Occupational classifications and standards; scientifically prepared and impersonally administered job and employee rating plans.
- (2) Vacations and group insurance; plant publication; sick benefits; a credit union.
- (3) Continuous practical training of employees; information of a character that they can show and explain to their workman friends from other firms is provided, free library service; a permanent year-round training pro-

gram for key men, foreman, superintendents; a program to train union officials, bulletins on problems and conditions facing the industry are sent to employees as the occasion requires.

(4) Rest periods for all employees; safety committees and safety engineers.

(5) A monitor is assigned to each incoming employee to introduce him and aid his orientation in the plant; a major executive devotes considerable of his time frankly and conspicuously circulating among the employees, encouraging them to exchange viewpoints, learning their irritations, to make proper adjustments.

(6) Cash awards are paid for helpful suggestions.

Examples of Improved Efficiency

DID the plan work? Yes. Did efficiency improve? Yes. First, I will cite a few examples of how this spirit of cooperation manifested itself.

Shortly after the agreements were signed a union man working in the floor-covering plant approached the management and pointed out how he thought a big saving amounting to thousands of dollars in waste could be effected. His reasons were convincing and definite. It was obvious that he had given the matter some thought. After producing some development plans, he was made "waste engineer." He proceeded to uncover many small leaks. Some of these, such as careless cutting to pattern size, and paint drippings on fresh floor coverings, appeared inconsequential but in the aggregate represented an annual saving running into thousands of dollars.

Developments also proved that the sales volume can be lifted when factory workers take hold. In one instance, a recommendation from a union delgation was directly instrumental in getting a floor-covering contract for a public building. In like manner, the school board of a neighboring city was persuaded to install the company's linoleum in a school building which was under construction. In California, the state, counties and municipalities are large buyers of paint, linoleum, roofing and building materials for public works. The unions have frequently formed voluntary committees to secure such business for the company.

Truck drivers, too, can be salesmen. An instance of this occurred when one of our truck drivers was making a regular delivery. He observed that a competitor's product was being tested by the purchasing department of a nearby municipality. He informed our sales department which "stepped on the gas" and got the order. On another occasion, one of the employees in the varnish factory, uncovered a lead, while off duty, which resulted in the sale of roofing for a block of houses. So the story goes. Every man on the payroll frequently can be a source of help to the sales division. It also serves to prove the old adage that a thousand pairs of eyes are better than one. The same goes for the mind and heart.

Plant efficiency, an intangible, is difficult to determine. It might be compared to the morale of a football team or of an army. It cannot be weighed or analyzed; yet, in time, the cost accountants will almost, if not quite, catch up with it. Sooner or

cost. It shows up in the cost per unit of production, waste and tool loss and damage statistics, and sales. Yet, so often are other factors involved that the accountant usually cannot quite put his finger with certainty, on what is wrong.

Unionization Decreases Worker Worry

WE HAVE found that through unionization, plant workers have lost a certain amount of worry. They have a feeling of greater security. The men know that they are protected from the caprices of industry's first sergeants, the foremen, about whose abuse of power a whole mythos (exaggerated of course) of industrial terrorism has arisen and from whom they feel they must be protected. Management is alert to employees' rights and sees to it that the personnel policies are not just formulated, but are actually carried out.

This insures a better mental condition in the factory. The men are then able to perform their tasks better. A man who believes he is going to be on the payroll permanently is willing to work and build for the future.

Cooperation Best Job Insurance

IT HAS given the men a feeling of strength they did not previously possess. Each knows that if he does his job and does it right, his seniority and job rights guaranteed by company policy and union contract are assured. He knows the rules and that if he adheres to them, his job and his seniority rights are secure so long as the company is in existence. And right there is a point which causes him to do some thinking and in the end makes him a better workman. He knows that if his job and his seniority rights are to be wholly secure, the company must make a profit and that to do this, the plant must operate efficiently. In brief, he realizes that he has a stake in the company and that it is to his best interests to do everything he can to help it to show a profit. That this is the best job insurance he can buy.

Except for concrete instances, such as I have cited, this element of efficiency is more or less a matter of confidence in one's own organization—until the year-end when the poker-faced cost accountants check and measure the results. So, it was with our company last year until the accountants had finished digging and analyzing and figuring. Then, it was that they determined there might be something in unionization, after all—for plant efficiency was up a full eight per cent and waste was down 20%. Sales due to employee support were up several hundred per cent. The accountants had found nothing other than improved morale and greater factory cooperation to which this result could be attributed.

If You Think of Revising Your Wage and Salary Policy, Make Sure You Introduce the Best Plan Possible, and Go About Its Introduction the Right Way. Otherwise Employee Dissatisfaction May be Increased Rather Than Decreased.

Planning for Fair Salaries *and* Wages

BY EDWARD N. HAY

The Pennsylvania Company
Philadelphia, Pa.

CONSIDERATION of a man's salary requires thought regarding three points: first, what are the duties of the job; second, what is its salary value; and third, how well does he do it. For example, a stenographer's work is ordinarily worth more than that of a typist, so the salary *rate* for a stenographer is higher than for a typist. In addition, the most capable, experienced and conscientious stenographer does more and better work than an average one, and she should be paid more.

Company Policy

THE following is an extract from the salary policy of our company:

"It is the desire of the management of The Pennsylvania Company to pay equitable salaries to all employees and at the same time to maintain reasonable control over the item of salary cost, which represents nearly one-half of the total expenses of the Company.

"In arriving at the correct salary for each employee, two conditions must be met:

1. There should be a direct relationship between the duties and responsibilities of a job and the salary paid for that job.
2. Individuals on the same work differ in experience, ability and willingness, and provision for recognizing these differences must be made by variances in salaries. This is accomplished by having a salary range for each job."

This is just another way of stating the three questions:—"What is the job?" "What is it worth?" and "How well does he do it?"

To know "what is the job" requires an accurate knowledge of the facts regard-

THEir relative position. To know "what is it worth" necessitates a detailed comparison of jobs with each other to determine their relative value and requires a thorough study of prevailing wage rates and other pertinent data. We may refer to these two sets of facts as "Salary Classification."

To know "how well does he do it" requires that reports be made at intervals on the character of the work performed by each individual. This is commonly referred to as "Employee Rating Reports" or "Merit Rating."

We will be able to consider at this time only the subject of Salary Classification, which has to do with the duties and value of the job and is not concerned with how well the man does the work. It is impersonal. A discussion of Merit Rating would require another whole period.

Determination of the right salary for each position is a matter of knowing the facts and of acting fairly on the basis of those facts. The factory or office worker needs to have confidence that he is receiving equitable treatment.

Shall We Have It?

THE first step begins by securing the decision of management on the question, "Is systematic salary and wage classification desirable?" At the outset there is nearly always objection on the part of some executives to the surrender of their control over salaries. Their objections may not give this as justification, but it is usually behind whatever reasons they do give. In any sound plan, this objection is unfounded anyway, because systematic treatment of the salary question is sure to be fairer to all than dependence on the opinion and will of any one person, however wise and experienced. Some objections come from employees who fear the loss of preferred standing previously enjoyed, or because of possible adverse effect on those whose worth to the business may not rest on solid ground. These objections will not, however, be shared by the great majority of executives and rank and file, if the management's purpose is made clear at the outset and if the interest and help of everyone is invited.

Who Shall Do It?

IF A decision is reached to proceed with salary classification, then the next question is: "By whom should the job evaluation be done?"

The exact answer to this question is not as important as the underlying implication—which is that the responsibility should be definitely placed in the hands of someone capable of doing a good job. Furthermore, even in the smallest company all the preliminary plans and the conduct of the actual installation should be a full-time job. For best results, that person should have had technical training for it is an intricate job. Ordinarily, salary and wage classification is a personnel function and therefore it is usually best to assign the problem to the Personnel or Industrial Relations Director, or to a capable technical assistant responsible to him.

Executive and Employee Participation

BESIDES placing responsibility for the detailed work in capable hands, provision must be made to assure the interest and cooperation of the entire organization. In our Company this was accomplished first, by the creation of a committee of senior operating officials appointed by the President and designated as the "Job Valuation Committee"; and second, by addressing a letter from the President to every executive and employee, stating the policy and purpose of the management in appointing the Committee on Job Valuation. This letter also stated the responsibility of the Personnel Officer for the conduct of the detailed work, his cooperative relationship with the Job Valuation Committee, and asked for the help of every individual.

The stage was now set for the actual work to begin. Before each step was taken it was carefully planned by the Personnel Director and the Chief Job Analyst, and then discussed in the Job Valuation Committee. This committee had the responsibility of approving in advance each step in the procedure. This not only gave protection against mistakes, but provided an organization-wide point of view, which tended to make the work of job valuation more acceptable to executives and to the individual employees. We wanted to avoid the common mistake of giving primary attention to getting a "perfect" method, and not enough to its application. We felt that even a mediocre plan would be satisfactory if well sold to the organization, put into effect carefully, and then fairly administered. Although we regarded application of the plan as paramount, of course we wanted the best method we could find.

We have derived much benefit from our experience over a period of several years, during which we had used first a simple classification method and then a point method. We felt we were now ready for a more refined plan. Our committee approved the adoption of a method known as the "Factor Comparison Method," which I described in the *Personnel Journal* of April 1939. It is a method not yet in very common use, but is attracting considerable attention at the present time, mainly because of its successful development at The Atlantic Refining Company, Philadelphia, by Mr. Samuel L. H. Burk. An extensive description of his work appears in February, 1939 *Personnel*.

Getting All the Facts

HAVING outlined our procedure and chosen a plan of salary valuation, we are now ready for our *second step*; the carrying out of the plan.

If jobs were to be valued with reasonable accuracy, it was necessary to have the complete facts about each one. The first step in the actual work was, therefore, to secure detailed descriptions of all jobs. The method of doing this for office workers differs from that used for factory workers. In our case, with over 1000 clerical workers, it was felt that their personal interest was important, and that it

could be secured to a large degree by asking employees to describe in writing the duties of each position and to tell what they thought were the most important responsibilities. Usually, factory or hourly-rated jobs are studied by the interview method, without using questionnaires. Inability of some men to read and write and the many jobs requiring very low intelligence are among the reasons for this.

Detailed Steps

The detailed steps by which we got the facts were as follows:

1. Each employee wrote answers to a questionnaire about his job and described his duties.
2. Supervisors did the same for all subordinates.
3. Job Analysts interviewed each employee and each supervisor for further facts and frequently examined the actual work.
4. Job Analysts then wrote descriptions of all jobs in standard form.
5. Frequently the job description was discussed with the employee to verify its accuracy.
6. The job description was always shown to the supervisor for his detailed inspection. If it was satisfactory, he signed it. This is an important feature in tying supervisors into the plan and assures their support. It also requires analysts to recognize the regular lines of executive authority.
7. The approved job descriptions were duplicated for the use of job analysts, committee members, employment department and supervisors concerned.

In writing the job descriptions the analysts must learn to distinguish the most important duties from the others. While thoroughness is a virtue, the analyst must learn to omit unessentials and to bring out clearly the *chief* duties and responsibilities, for it is these which will determine the job value.

Faulty job descriptions are found at the two extremes. At one extreme is a long and detailed statement of every duty, including the least important. It is difficult to find what *is* important by reading a description of this kind. At the other extreme are descriptions not of the actual job duties but so general as to constitute merely occupational titles. For instance, "Junior Typist—copies simple material" instead of an outline of the actual work done. The weakness of such a brief statement lies in the fact that the work of what might be called Junior Typist actually varies greatly. More exact methods of description might produce differing job values for several typist jobs, according to the greater or lesser importance of the actual duties performed.

Getting Best Job Descriptions

RELiance on job descriptions written by the employees themselves or by their supervisors is unwise. One reason is the inability of many people to write concise descriptions, omitting unessential details, and another is the lack of uniformity in descriptions produced by many different authors. Carefully written job descriptions, made with the help of statements of duties written by the workers themselves, by descriptions of the same jobs by the supervisors, and by personal

interview, are definite and concrete and facilitate accurate valuations. Furthermore, the record thus made serves for further reference and permits reconsideration of a job value at any time.

Values based on general occupational titles or made without any written statement are not only likely to be less exact in the first place, but cannot be readily reviewed thereafter. A serious weakness of most methods is that they do not employ detailed, written descriptions of every individual job. It has always been a mystery to me how jobs can be valued without knowing exactly what duties they include and what the responsibility limits are for each job.

Finding Job Values

AFTER the thorough and painstaking work of gathering all the facts has been completed, it is now possible to find the worth of jobs in terms of salary values, with good prospects of a satisfactory result.

There are two aspects to the determination of the proper salary for a given job. One of these we may call internal consistency and the other external consistency. By internal consistency is meant paying a salary for each job which is in accordance with the duties and responsibilities of that job and, furthermore, to pay like salaries for like work throughout the organization. By the phrase, external consistency, is meant establishment of a scale of salaries throughout the organization which is related to the general market level in accordance with company policy. In other words, if it is the policy of the company to maintain a high salary level, this can be done *if* we know what our own level is and how to relate it to the general market level.

These two problems of internal and external consistency must be solved separately, one at a time, and the internal problem must be solved first. The Factor Comparison Method does this by a process of comparing each job with other jobs. Logically, this is the surest way of securing the right relationship between jobs.

First Work with Key Jobs

THE way in which this is done is, first, to select a series of key jobs, about 25 or 30 in number. These must be jobs which are generally believed to be paid about right and the duties of which are well established and clearly defined. These key jobs should be selected so that every salary level is represented, from the lowest to nearly the highest. With a carefully selected list of key jobs whose salaries after careful study are believed to be about right, we are ready to place valuations on all other jobs. The selection of the key jobs and their valuation was the joint effort of the five analysts, the Personnel Officer and the five members of the Job Valuation Committee. The seasoned judgment of the Committee Members was very valuable for this purpose. This set of key jobs we may regard as anchor points from which to determine the values of all other jobs. It will be seen that this makes for a

consistent relationship between all jobs since we have compared them backwards and forwards with each other. Thus our internal relationship is established.

This process sounds simpler than it is and experience shows that it is impossible to do it satisfactorily when jobs are compared directly with each other in toto. For example, two of our jobs which fall into the same salary class are Secretary, Position No. 730, and Supervisor, Delinquent Reporting Clerks, Position No. 214. Both of these jobs fall in the Salary Class "I". Any position in that class may be paid a salary not lower than \$103. per month and not more than \$138. By putting upper and lower salary limits on the job, we narrow the area in which favoritism and error operate. Merit rating will still further narrow it.

Two Sample Jobs Compared

IF THE descriptions of these two positions are read, it will be very difficult to find any duties that will serve as a basis for identifying them as being jobs of the same value. There are many other secretarial jobs both higher and lower in value than this one or than this particular supervisor's job. It will usually be found that each job derives its main importance from some one or two factors and these factors may be different in different jobs. The most casual consideration would force one to the conclusion that the principal importance of the supervisor is in his responsibility. It is not a job involving much training or mentality or skill. A secretary, on the other hand, is paid primarily for her mental ability and skill rather than for responsibility or physical effort. If there were some way of comparing jobs according to these fundamental characteristics, some of which have been mentioned, it is more likely that correct relative values will be found than if the two jobs are compared directly in toto.

Five Factors Used

THE principles underlying the Factor Comparison Method are, first, that of comparing each job with other jobs and, second, the principle of relating jobs to each other according to the factors underlying all jobs. The following tabulation illustrates this point:

	SECRETARY POSITION NO. 730	SUPERVISOR DELINQUENT REPORTING CLERKS POSITION NO. 214
Mental effort	80	23
Physical effort	10	14
Responsibility	5	48
Working conditions	4	8
Total	\$119	\$120

It will be seen in comparing these two positions that the Secretary's job requires a good deal more mental effort and skill but considerably less responsibility than

the Supervisor's. Yet, the two jobs are of approximately the same importance, one having a total value of \$118 and the other \$120. They, therefore, belong in salary grade "I", in which class employees may be paid between \$103 and \$138 per month. A commonsense overall comparison of these two jobs with many other similar jobs, in our company and elsewhere, permits us to verify the valuations arrived at.

By this illustration it will be seen that when all jobs in the organization are compared with the key jobs in order to value them, it is done five separate times, once according to each factor, Mental Effort, Skill, Physical Effort, Responsibility, Working Conditions. The resulting five-point valuations are added together to give the total valuation for the job. For a more complete discussion of the detailed manner in which this valuation process is performed, refer to my article, "Arranging The Right Pay," which appeared in the April 1939 issue of PERSONNEL JOURNAL.

Comparison with Community Rates

THE process just described has resulted in evaluating jobs relative to each other. It has been done by relating all positions to a series of key jobs which after careful study were selected as ones which were priced about right. This satisfies our requirement of internal consistency, as it was defined. Next, it is necessary to test the job value against the outside market.

A step in the process of establishing external consistency requires a survey of salaries in the community among companies drawing from the same labor market. Without going into details, it is sufficient to say that from this study and from a consideration of the cost of living and from the results of collective bargaining and from any other facts we wish to consider, it is now possible to establish the salary base. For convenience, all jobs are grouped into a series of salary classes and salaries can always be changed by increasing or decreasing the limits of each salary class as well as the salaries of individual jobs.

If you are going to try to price your jobs, do it carefully. The two principal reasons for valuing jobs are to obtain control of salary expense and to gain employee goodwill by assuring fair treatment in the payment of salaries. If you do a poor job you will not attain the first of these aims and you will not only not gain the second, but indeed are more likely to cause actual discontent.

Eleven People Have a Say

ONE of the advantages of the Factor Comparison Method is that decisions as to the value of all jobs are arrived at by what is called "pooled judgment." At The Pennsylvania Company, a Chief Job Analyst was in charge of the detail work and reported to the Personnel Director. He had four temporary assistants called "Job Analysts" and one transcribing machine operator.

Under our procedure, the five analysts completed the 600 job descriptions for about 1025 employees in three months. Then the five members of the Job Valuation Committee, the five analysts and the Personnel Officer made a careful valuation of the key jobs. This was done by the method of "pooled judgment" which is essentially the average of the independent estimates of these eleven men made three separate times. Then each analyst valued the entire 600 jobs. Next, their opinions were "pooled" by assembly on suitable forms. Where they agreed, the result was the value of that job, and where they disagreed, steps were taken to reconcile differences.

This is a more satisfactory and accurate method than if the five analysts had sat together and made a joint decision as to the value of each job, after discussing it together. In such procedure, the judgment of one analyst usually dominates the group with the result that the job value represents only one judgment and not five. The job values were next submitted to the departments concerned, and if approved were laid before the Job Valuation Committee for general review.

Sometimes this Committee of officials, from the wide experience of its members, took exception to certain job values, even though they had previously been approved by the departments affected. The judgment and experience of this Committee were invaluable in securing a balanced and commonsense final result.

The Committee continues to serve for the final approval of all new and revised job grades and is the final authority on all matters pertaining to job valuations. The high rank of the individual members was an important element in establishing its prestige with the organization, particularly with other executives and supervisors.

Overs and Unders

HAVING placed values on all jobs, we are now ready for the *third step*, which consists of a study of present salaries in comparison with the values which were established for all positions and the continuous application of these values to every individual salary.

An analysis made when 93 per cent of our jobs had been valued showed the following—the valuation of the remaining 7 per cent not having been completed at that time:

	NUMBER OF POSITIONS	PERCENT	AMOUNT
Salaries found to be within new limits	1,200	18	
Salaries above new maximum	1,200	18	\$43,270 per year
Salaries below new minimum	1,200	18	\$12,770 per year
Net Excess			\$20,505

Raises and Transfers

IN THE past eight months, since the completion of the work of job valuation, we have increased the salaries of all but a dozen of those persons whose salaries were under the new minimums. Many of them were brought to or above the minimum at once, and all the rest but a few special cases were increased part way, the remainder of the increase to be given this year. One of the results of the salary evaluation has been the inauguration of a thorough review of all employees of the company.

Where we found salaries markedly over the maximum they have been reviewed and in many cases the employee was transferred to more important work. Only as a last resort have we in some cases reduced excessive salaries, usually with extra allowances for length of service. In such cases they are sometimes cut back by stages over two or three years, enabling the employee to adjust his living arrangements. In time we will in some manner eliminate most of these "overs" without disregarding the rights and feelings of those affected.

Salary Review Plan

THE most important part of the third step, applying the results of the study of job values, is the adoption of a systematic method of reviewing the salaries of individual employees from time to time so that they may be compensated for increasing skill and experience. There are many different ways of doing this, the most common being an annual salary review for the entire organization, or a monthly review of the salaries of those employees who were originally employed in that month. Thus all persons employed in the month of January of any year will be reviewed in January of each succeeding year. The third and more common method is the unsystematic one of increasing salaries when compelled to by circumstances.

For some years we have been using the method of annual salary review and have recently changed to the monthly anniversary scheme with very satisfactory results. Under that plan a list of the employees whose anniversaries have arrived in a given month is sent to department and division heads for their recommendations. These lists are returned to the Personnel Department for study and after agreement between the various departments and the Personnel Department, are submitted by the Personnel Officer to the President for his final approval. We have found it possible to give more careful attention to each individual employee by this plan than was possible under the method of annual salary review and we have found so far that the method is much preferred by employees and by supervisors as well.

The gradual introduction of periodical employee reports or service ratings on each employee establishes the degree of merit of every employee long in advance of salary review time, thus determining impartially and somewhat automatically the degree of consideration which he will receive at that time. Thus, the matter of salary adjustment is becoming more and more a matter of individual merit and of job importance and less and less a matter of preference, prejudice or accident.

Eight Benefits from Plan

LET us review at this point some of the benefits of a sound plan of salary valuation. First is the control of salary expense by knowing what should be paid for every job and by placing definite limits on the top salary for every job.

Second is the assurance to employees that salaries are based on careful studies of the jobs and on good individual performance.

Third is the possibility of improvement in selection of new employees and of sounder promotions because the requirements of all jobs are definitely known and readily available to all concerned.

Fourth, a company-wide promotion policy can be adopted rather than merely a departmental one, because of the better information available and its wider dissemination.

Fifth, efforts of employees to secure promotion are stimulated because the limits now placed on salary increases in any single job forces employees to seek promotion in order to get further raises.

Sixth, better training programs can be provided because job requirements are better known.

Seventh, job titles can be standardized.

Eighth, clarification and improvement of the organization structure and of the relationships between employees is possible.

At this point two questions will occur to you. "Did this scheme save your company any money?" and "What do your employees think about it?" Since cost control and employee good-will were our two chief aims, these questions must be answered.

Effect on Costs and Employee Goodwill

IT must be apparent that our costs have, temporarily at least, increased by a very small percentage since we raised the pay of those under the minimum and have not effected reductions elsewhere in an equal amount. However, we now know what salary should be paid for any kind of work and we pay it. Formerly, there was a serious lack of balance under which some employees were overpaid at the expense of others who were underpaid. We are now well along the road to a correct and equitable distribution of the total payroll; we know that our salary scale compares favorably with community salary rates, and we are now able to keep total salary costs within predetermined, appropriate limits.

As to employee opinion, no management can ever be sure that it knows what employees think, but we have much evidence to indicate that in attaining that "equitable distribution of the payroll" of which I spoke, we have also achieved a measure of employee approval, and have a sound basis for future good relations with our employees.

From a paper presented at one of a series of five Executive Conferences, held in Boston,

January 19-21, 1939.

—L. L. M.

At least Thirteen Federal Agencies now have Written Statements of Policy in Labor Relations. Others are Drafting them. This Article Analyses the Written Statements of Policy so far Available. Federal Agencies May not Enter into the Usual Form of Labor Agreement with Unions.

Federal Policies *on* Employee Relations

BY JOHN J. CORSON AND ILSE M. SMITH

Social Security Board
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LIKE other employers, the Federal agencies from time to time deal with their employees and with representatives chosen by their employees. As in private enterprise, the relationship between the management and the employees is a significant aspect of administration. Yet, the whole subject of relations between the Federal government and its employees has, until recently, received little ordered study or consideration.

In an Executive Order (No. 7916) of June 24, 1938, President Roosevelt initiated a program for the development, improvement and coordination of personnel policies in the Federal government. Among other provisions, this Order directed each Executive department and designated independent agencies to establish a division of personnel supervision and management.

Approval by Civil Service Commission

THE employee relations policies developed by these divisions were to be approved by the Civil Service Commission. To evaluate and coordinate the policies submitted, the Commission, presumably, will have to establish standards as to the content and development of a public-employer-employee relations statement. In relation to these standards, it is pertinent to consider the employee relations policies now in effect in various agencies. Although the program envisaged by the President is still in its early stages, the policies and practices of many Federal agencies in dealing with their employees have been developed, strengthened and clarified during the past 2 years.

Statements of Policy

MANY agencies of the Federal government have issued written statements to their employees concerning the relations between the management and the employees. These instructions sometimes set forth, for the benefit of supervisor and employee, the official policy of the agency toward employees on matters within the range of administrative discretion. Departmental rulings on purely substantive matters of personnel administration, excerpts from laws and regulations, or still other types of employer-employee communications may be combined with these instructions or issued separately. These written statements provide what is probably the best indication of the status of employee relations in the Federal Government.

Agencies Covered

AT LEAST thirteen Federal agencies report that some formal statement on the subject of employee relations is now in effect. These agencies are:

Department of Agriculture
 Division of Disbursement (Treasury Department)
 Bureau of Internal Revenue (Treasury Department)
 Federal Home Loan Bank Board
 U. S. Housing Authority
 Department of Labor
 Navy Department
 Social Security Board
 Department of State
 Tennessee Valley Authority
 Veterans Administration
 War Department
 Works Progress Administration

The personnel offices in some agencies are now drafting initial statements of this kind. In still others, administrators and employees have tacitly agreed on certain employee relations policies. The information presented in this article, however, is based almost entirely upon the written statements of policy made available by the Federal agencies listed.

Policy Topics

MATERIALS issued during the past few years first of all reaffirm sentiments earlier expressed by President Franklin D. Roosevelt on the subject of employee organization, collective bargaining, and strikes in the Federal service. (See pp. 96 and 98-99 of the September 1938 *Personnel Journal*.) Some of the statements consist of general declarations concerning employee organization and representation; a few largely concern appeals procedures. Others discuss a half-dozen or more topics, as indicated in succeeding pages. In general, three broad aspects of employee relations are covered more or less fully.

Organization Activity

FIRST, a large proportion of the statements are concerned with the departments' attitude toward employee organization and representation. The right of employees to form or affiliate with "any organization or association of employees" is usually affirmed. The Social Security Board recognizes the right of employees to join "any employee organization formed for the purpose of promoting the welfare of its members. . . ." Some statements also assert that individual employees may *refrain* from joining any such organization, and, at the same time, prohibit discrimination against employees who do, or do not, affiliate. Not all of the agencies have considered it necessary to include the additional point concerning non-membership.

Employees may also select representatives and confer with officials through them. "It is the policy of the War Department," reads part of the official regulations governing civilian personnel, "to consider it a right of its employees to present to its employing agents for consideration matters in which they are concerned, affecting compensation, conditions of employment, etc. This right may be exercised individually or collectively through committees of employees selected by the employees themselves who are involved."

Union Activity on the Premises

BEYOND mention of meetings, canvassing for dues or membership, and distribution of literature, the statements available to date do not treat types of organization activity very fully. According to the Federal Home Loan Bank Board, the right of membership or nonmembership in employee organizations also takes in "participation" and "non-participation." Canvassing may be conducted among employees of the War Department after working hours.

At the Bureau of Internal Revenue and the Division of Disbursement, in the Treasury Department, dues may be collected during lunch periods, "so long as such activities are conducted without coercion and without interference with the official business." These two agencies permit official union representatives to address employees at their offices, on the subject of union affiliation, outside of regular business hours. It is a fairly general practice to permit display of notices and announcements about organization activities on the agencies' unofficial bulletin boards. The two Treasury Department offices direct that such materials must not give offense to members or non-members.

Employee-Supervisor Discussions

SECOND, all specify that individual employees are at liberty to discuss their problems with supervisors and other staff members. As expressed by the Department of Agriculture, "Whenever an employee desires to avail himself of an informal

discussion with officials, he should feel free to use that means of making his views known." Some agencies have thought it necessary to specify that the right of employees to bring up problems individually shall not be limited by any rights simultaneously accorded, under which employees may confer through representatives. At such times, the directions usually indicate, employees are intended to be free from any ill consequences of such action, growing out of the attitude of supervisors and coworkers. Of course, no written statement can entirely prevent employees from being possibly deterred by other individuals, or their own reluctance, from approaching supervisors. Federal agencies consider the informal employee-supervisor conferences very important. Special supervisory training programs, inaugurated by several agencies, have often been a primary factor in preventing the development of serious misunderstandings and formal complaints.

The agencies do not attempt, except in the most general way, to outline the kinds of problems that employees may bring up. The Department of Agriculture specifically directs that employee requests for information on personnel regulations and appeals procedures are to receive prompt attention; and also that an employee shall be permitted to inspect the formal description of his official duties, that is kept on file for classification and other purposes.

Grievance Adjustment

THIRD, some of the statements are chiefly concerned with procedures to be followed in connection with serious complaints. Adjustment of any difficulty is to be sought first with the employee's immediate supervisor. As indicated above, employees are given formal encouragement to take their problems to supervisors. If an employee feels that he was not given an adequate hearing by his immediate supervisor, he may carry the matter on from one supervisory level to another, even to the head administrative office. Appeals from Supervisors' decisions can be had in all Federal agencies, whether or not an appeals procedure has been formalized.

Second Level Appeals in Writing

THE Department of Agriculture indicates that the unit, section, or division heads represent what the employee relations statements refer to as the "established supervisory channels" through which complaints are to be carried. Such channels, according to the TVA statement, will be defined from time to time by administrative officials. The appeals may be presented orally; but any that are carried to higher administrative offices must be in writing. Further, if it appears that an appeal is to be taken to the main administrative office of an agency, or to those of one of the bureaus, written notice is usually required. According to a rule adopted by the U. S. Housing Authority, such notice is to be filed not later than 30 days following the more informal attempts at adjustment. Most of the formal statements are silent concerning the time when appeals are to be heard; but two agencies specifically

direct that all appeals shall be considered during regular working hours. At least one agency definitely provides that, pending the outcome of a hearing, any contemplated disciplinary action affecting an employee is to be suspended.

Appeals may generally be submitted with regard to any conditions of employment or difficulties occasioned by the interpretation and application of personnel regulations. The U. S. Housing Authority states that: "The subject matter of a complaint may relate to vacations, promotions, tenure, service ratings, decisions of the Personnel Board of Review, procedure for collective bargaining, or any other matters concerning employment and working conditions." Either the employee or his representative may make the appeal. Some of the subjects on which appeals were made by union representatives of individual employees or by the employees, themselves, in the Social Security Board are as follows:

1. Efficiency rating: low rating attributed to discrimination on personal grounds;
2. Dismissal: real reason alleged to be employee's union activity;
3. Transfer: employee believed his progress would be retarded;
4. Promotion: denial because of employee's absenteeism;
5. Alleged intimidation: complaint by probationary employee;
6. Work shift: change to night shift affected health;
7. Promotion: employee requested preference over outside applicant;
8. Classification: employee considered his job underclassified.

Appeals Committees

A FEW Federal agencies have experimented from time to time with appeals committees, chosen to serve when more informal methods fail. The organization and duties of these committees are outlined in the respective employee relations statements. With one or two exceptions, these committees are to be assembled as occasion requires and then disbanded. By direction, their three to eight members shall include representatives of employees, supervisors, and administrative officials, and sometimes one extra, entirely impartial member.

The employee is usually authorized to select his representative; in one agency, he may authorize selection by an employees' organization. The appeals committees are to conduct fact-finding investigations and are given clerical assistance and authority to hear witnesses and consult records. Recommendations are to be submitted to the responsible administrative officer, from whose decision appeal may sometimes be had to the chief administrator. In some agencies, committees appointed to review appeals on efficiency ratings have had to adjust grievances found to underly the rating appeal.

Provision for a formal hearing has been observed to have a salutary, psychological effect in that employees and supervisors were mindful that disputes could be carried to an appeals committee. Employees have benefited from sympathetic review of their case, sources of friction have been discovered, issues defined, and

long-standing differences resolved. However, current emphasis on both the early adjustment of grievances and the improvement of supervisor-employee relations has caused a trend away from the use and establishment of appeals committees.

Employee-Management Cooperation

SOME of the employee relations statements make a further approach to grievance adjustment, distinct from directing recognition of employee representatives, outlining appeals procedures or encouraging amicable employee-supervisor relationships. These statements anticipate that personnel policies and regulations will be developed, as far as is possible, in cooperation with employees and in their best interests. By this means, the agencies concerned hope to prevent the development of complaints and formal grievances.

This approach to democratization of management is much less well developed than other aspects of employee relations. Only a few agencies formally provide for joint discussions between employees and management on questions of policy affecting employee interests. The TVA Board of Directors looks forward "to the establishment of joint conferences between the duly-authorized representatives of the supervised employees and the supervisory and management staff, for the purpose of systematic employee-management cooperation . . ."

The Social Security Board recognizes the right of employees and employee representatives to bring to the attention of Board officials any matter relating to conditions of employment. Below are listed a few of the general and specific problems which employee representatives have brought before officials of the Bureau of Old-Age Insurance, at the Social Security Board, for joint discussion. Probably a similar list could be furnished by other agencies.

Problems Discussed with Employee Representatives

1. The type of materials that would be placed in the personnel folders; whether individual employees should be contacted before any unfavorable items are added to their own file; and the particular circumstances under which employee representatives might, or might not, be permitted to consult these folders.
2. Mechanical difficulties accompanying installation of thermometers in office buildings; the temperature that would occasion early closing; whether the humidity should be taken into consideration; and time spent by employees to tell supervisors about the temperature readings.
3. Arrangements proposed for hearing disputes over an employee's efficiency rating; meaning of the terms used in rating efficiency; and particular reasons that justify lowering individual employee's ratings.
4. The hours during which unions would be permitted to hold meetings, hear employee complaints, and distribute literature.
5. Organization of training courses to acquaint all employees with content of amendments to Social Security Act.
6. Whether certain divisions would be housed in the office building under construction in Washington, D. C., and the approximate date whereon the new quarters could be occupied.

FEDERAL POLICIES ON EMPLOYEE RELATIONS

7. The need for additional nursing service for employees.
8. Tentative placement of new appointees, pending outcome of physical examinations, when the Board must rapidly expand its personnel.
9. The extent to which reasonable notice could be provided prior to dismissal.
10. Approaching expiration of certain temporary appointments; whether some of the employees affected could be placed with other agencies; the possibility of retaining employees pending result of civil service examinations; and proposed establishment of a preferential reemployment list.
11. Existing fire hazards and conduct of fire drills.
12. Constant overtime in certain sections, and requests for compensatory time off.
13. The ventilation and lighting of basement rooms; whether the Board should initiate building surveys of these matters.
14. Factors considered when granting promotions; publication of vacancies; whether preference could be given Board employees over outside candidates when new positions were being filled; and provision of equal opportunity for advancement.
15. The number of salary raises being given; when such raises would become effective, and their distribution among employees of various grades.
16. Factors influencing assignments to day or night shifts; methods of determining employee preferences; and the time of the week during which change between shifts might best be made.

Although there is little formal machinery for employee participation in the determination of policies and procedures, practice may well be ahead of written authorization in this respect. Grievance negotiations at both the lower and higher supervisory levels may develop into consideration of general policies. Certainly the circumstances leading to grievance cases and the decisions made cannot fail to influence subsequent policy determinations to some extent. Perhaps the next major step in the development of Federal employee relations will be wider formal adoption of methods for increasing cooperation between management and employees on personnel and employment policies.

Policy Development

How did the formal statements, which now constitute the foundation of employee relations policies in many Federal agencies, develop? In every case, informal procedures long in effect, if not in writing, influenced the content of the statements prepared. The initiative for the issuance of written statements came from administrators and personnel officers in some instances. The Federal employee unions, particularly the CIO-affiliated UFWA, influenced the development of policies and also contributed directly to their embodiment in formal statements on several occasions. In some agencies, the President's Order of June 24 and the advice of the Committee on Administrative Management provided the spur to action.

The actual methods by which statements were prepared differed in the various agencies. The procedure followed by the Department of Agriculture, however, is fairly representative. The Office of Personnel in that Department prepared the

initial draft of *Memorandum No. 753*, "Personnel Relations Policy and Procedure." Experience acquired within the Department, within other Federal agencies, by state departments, and a few industrial organizations was utilized for this draft.

Suggestions were then obtained from bureau chiefs who were in charge of various types of work and who entertained different views on management problems. The Directors of the Offices of Finance, Information, Extension, Research, and the Solicitor next reviewed the materials. Following this, three separate conferences were held, respectively, with (a) the heads of the employee unions or lodges within the Department, (b) a sample group of 14 employees (selected without regard to grade, salary, or affiliation or non-affiliation with any organization), and (c) chief representatives of the NFFE, the AFGE, and the UFWA. Copies of the memorandum in final form were then distributed to all employees.

Objectives

ALTHOUGH the employee relations statements vary in origin and particulars, they have three significant objectives in common. First, they strive to insure that the work program and, consequently, the interests of the public will be of paramount importance at all times. The formal prohibition of organization activity during working hours illustrates this objective. Direct statements with this aim are also frequent. General Frank T. Hines, for example, informed the National Organizer of the UFWA that: "It has always been the policy of the Veterans Administration to recognize the right of its employees to organize and to cooperate with such organizations both locally and through their national headquarters so long as their activity does not interfere with the performance of our essential services."

Secondly, the statements endeavor to protect employees' interests by officially marking out certain rights and immunities for them. Affirmations of the right of employees to join an organization of their choice and prohibitions against discrimination illustrate this purpose.

A third objective is the facilitation of personnel administration by systematizing employee contacts. The adjustment and appeals procedures are the statements' chief provisions toward this end. The Employee Relations Policy of the Social Security Board was designed partly "to assure prompt and orderly consideration and adjustment of personnel matters, as well as to afford uniformity of treatment in the several Bureaus." Also important as a means of improving personnel administration are the steps toward greater cooperation between employees and management.

Conclusion

FROM the standpoints of both management and employees, these objectives are unquestionably desirable. But how far are they actually being realized? Here and there, practice undoubtedly diverges from official policy. Some indication of

the nature and extent of such divergence could be obtained from a careful study of individual grievance cases and general policy discussions. In the absence of such a study, we may tentatively conclude that, on the whole, practice follows policy. The very existence of formal employee relations statements is an indication of at least partial realization of the objectives they embody. Moreover, the policies and procedures are safeguarded by provisions for their enforcement in the statements themselves.

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If the European War Increases in Intensity Our Labor War Will also Increase. Unless American Industries such as Steel, Motors, Rubber Undertake Major Labor Relations Research Our Labor War will Continue Long After the European War is Over.

Million Dollar Research

Digest and Review

By CHARLES S. SLOCOMB

PUT three Americans, one Armenian, four Bohemians, three Germans, one Irishman and two Poles together, and set them to work. Let one be so short, "The Runt", that he cannot easily reach the top of his machine; another "Jumbo" so tall that he has to stoop to tend his; one an introvert who likes to work by himself; another who is friendly with everyone; another who has a superiority complex. They will do a surprisingly large amount of work.

But there will be a great deal of friction, argument, antagonism, unhappiness, misunderstanding, inefficiency, restriction of output, and grievances.

How to Get Full Productive Cooperation

THE making up of work crews in this way is common personnel practice. As personnel experts, we do not know enough psychology to put the right people together, and they might not stay congenial if we did. Furthermore, most assignment of work is by the supervisory force—who are obviously less capable than personnel men of doing more than a rough job, and who have many other things to think about.

The Western Electric Company is in the process of spending a million dollars on research, to see if and how this sort of thing can be avoided, its effects minimized, and full energy of workers devoted to productive cooperation.

The company makes telephone equipment, and knows the effects of crossed wires, faulty connexions and loose ends on the effectiveness of a telephone switchboard. Having by research and due care banished them from its equipment, it is

having a shot at banishing crossed signals, waste of energy, and mental insulations from among those who make the equipment.

New Personnel Method

As a result of research extending back 15 years, it is now experimenting with a new personnel method, modestly called "personnel counseling". According to the plan there is one counselor to each 300 employees, male counselors for men and female for girls. His job is to see that the relations of each of the members of his flock to each other, and to the supervisors, and between the supervisors is on a cooperative basis.

Having no authority whatever, but merely by understanding and conversation, and putting people together, he spots potential tensions, unconscious misunderstandings, grouches, deteriorations in work, buck passing, attempts to cover up, and quietly sets about to tighten up these loose connexions. "This kind of non-authoritative agency serves to control and direct those human processes within the industrial structure which are not adequately controlled by the other agencies in management."

This last sentence defines exactly why this new personnel method is being tried. The Company's long research has led it to see that the company organization does not make provision for taking care of certain things that should be taken care of—and the studies have pointed out the way in which they can be taken care of.

We have made a rough calculation to see what the possible costs and savings of the program might be. Briefly it would seem that if a counselor raises the efficiency of 300 employees by 1%, the company gets a return of 300% on its investment in his pay.

The Men of All Nations

How did the company come to set up this personnel counseling, and why are they doing it the way they are?

Back in 1931 the company wanted to know what was really going on in its Hawthorne plant, so it persuaded the group of men of all nations, named in our opening paragraph, to work in a room together, under the constant scrutiny of an observer. They were told that they could act just as they would if he wasn't there, and he would not tell the company what he saw, or if he did the company would take no action. They trusted him, and after a week or two acted naturally.

He stayed there for six months, and this is what he saw. There were three groups of three wiremen each, whose job was to attach wires to connexions of a switchboard. Each group of three wiremen had one solderman to solder the connexions. Two inspectors then inspected the work. All fourteen were under the direct supervision of a "group chief", who had other duties and was not in the room all the time.

They Restrict their Output

HOWEVER, restriction of output, below what the men could do. They were on a group incentive plan, so were reducing their weekly wages by going this.

It was planned restriction. Any man who did more than the group thought he should was ridiculed, scoffed at and physically punished. The men gave a variety of reasons for this, the most common being the usual one that the company would cut the rate if they did more. None of them had ever experienced a rate cut, and knew that it was the stated policy of the company that a rate is never changed unless the job is changed.

Yet they clung to the view, and there seemed no way by which it could be changed.

They Allow No Improvement

THE men had another theory, that each man should keep his output constant from day to day. This did not mean that each man did the same amount, but if one man did 900 connexions an hour usually, that was his quota. The 700 connexion man was not allowed to try to improve, and was criticized if he did less.

Though they received daywork pay, instead of the higher piece work rate, for interruptions not under their control, they reduced their output by deliberately claiming more daywork time than they had.

They also deliberately manipulated their daywork allowance, by working very fast for a while so that the inspector could not keep up with them. Then they rested while he did his work.

They varied the amount of work they reported as done, sometimes reporting more, and sometimes less.

They worked hard in the morning, and slacked off in the afternoon.

Reports on defects by inspectors depended on how friendly they were with the men whose work was inspected.

There was no relation between the output of a man and his ability as measured by dexterity and intelligence tests.

The investigators could not, at this stage, see any special reasons for employees behaving in these ways, which hurt themselves in that their pay was kept down, and hurt the company in that less than full use was made of its plant facilities.

The only theory they could develop was that workers did them because of the relations between supervisors and employees, and among the employees themselves.

They Keep Supervisor under Control

THE first line of supervision was the "group chief". His main trouble was that he knew that the boys were stalling, that they were claiming more daywork than they did, and that they were not giving him exact figures as to output. He

furthermore knew that they were not obeying factory rules, that they were helping each other and trading jobs.

What could he do about it? If they gave as an excuse defective materials, and he checked up and found materials were not defective, they would shift ground and blame the inspectors. If he tried to make a personal check on the amount of work they did, instead of taking their word for it, they would cause him all sorts of difficulties and argue with him. If he tried to stop job trading the workers would claim they did it because their fingers were sore, and what could he do about that?

He Goes Along

SO HE went along with the boys; tried to get them to obey orders as much as possible, but never told the foreman what they were doing. When he got into trouble he made up alibis just as the men did. Because he did this the boys went along with him, and avoided too frequent departures from the rules that might get him into trouble.

In greater or lesser degree the same attitude seemed to prevail as he went up the supervisory ranks to the foreman. There was more overt respect, true, but no greater conformity on the part of the men to factory rules, only an apparent conformity when the foreman was in the room.

So the facts showed that the two way channel of communication, in which orders are transmitted downwards and accurate information as to what is happening on the work line transmitted upward to management was a pretty leaky affair.

Employees did not obey orders, particularly rules relating to conduct. And the information transmitted upwards was essentially inaccurate. These difficulties were primarily due to the fact that employees did not behave, and did not wish to behave as the company expected them to do, when it set up its wage plan. But there was no way the company could find this out, before the study.

The story of the observer's conclusions regarding the relations of the employees among themselves is a most curious and enlightening one. There were friendships, quarrels of greater and less duration, job tradings, horse play, nicknames, such as "Speedking", "Cyclone", "4.15 Special", etc.

One man was not popular because he disliked the restriction of output, another because he "squealed" on the boys to the supervisor, another because he tried to boss them.

They Gang up on College Man

ONE inspector who was a college man, while the others were high school graduates, was forced out of the room, because he did not fit in with the general ways of thinking and acting of the group. They ganged up on him unmercifully, by all working very hard for a spell, and then standing by, claiming daywork, while he tried in vain to inspect all the work they had done. Then they went at it again,

and again got ahead of him. In retaliation he found many faults. Finally he had to be taken out of the room.

The other inspector was careful not to act in a superior manner, and to go along with the boys, not chalk up too many defects, and enter into their games and talk.

Two cliques formed among the men, one in the front of the room and the other in the back. The "front" boys regarded themselves as superior, as they were, in output. The "back" boys did less than their share of work, though their dexterity tests showed they were quite as capable. These two cliques ran across the planned setup, which was for three groups of men, four in each. A man could not transfer from one clique to the other.

They Make a Set of Rules

The rules of the room were:

- (1) You should not turn out too much work. If you do, you are a "rate-buster".
- (2) You should not turn out too little work. If you do, you are a "chisler".
- (3) You should not tell a supervisor anything that will react to the detriment of an associate. If you do, you are a "squealer".
- (4) You should not attempt to maintain social distance or act officious. If you are an inspector, for example, you should not act like one.

A man's position in a group was determined by the extent to which he obeyed the rules of his clique. The front clique obeyed all of them, and the back clique disobeyed No 2.

The general theory of this grouping of workers, and the rules they work out, is that they are to protect them from outside interference by the company or its supervisory representatives, and also to protect them from internal indiscretions.

(Note. The above conditions, though they may look like it, do not imply poor management. These men were wiring over 6,000 connexions each day, whereas the output for other companies doing the same kind of work was 4,000 per man per day. But in the Western Electric Company, 100 per cent efficiency on the part of these men would have produced 7300 connexions per man per day, without undue fatigue. The company was trying to find out why it did not get the 7300.)

The six months' period of observation came to an end in 1932, when the men were laid off owing to the depression. During the interim period the investigators had a chance of going over their notes, and figuring out what should be done about such situations when business picked up.

Personnel Counseling Invented

IT was then that they invented "personnel counseling". We can see better from what went on in this bank wiring room what a counselor has to do.

He must know what cliques and groups there are among workers, what the

rules and regulations of these groups are, why they were formed; the relation of each worker to each group, why he is in it, and how it affects his conduct; and finally the relation of each group to the supervisors, and of the supervisors to each group.

Then his job is to try to make the rules of the groups more logical, to see that the supervisors understand them, their strength, and how to deal with them, to interpret individuals' difficulties in their adjustment or lack of adjustment to the group in which they find themselves, and finally to advise the company in matters of policy, to avoid stirring up group antagonisms.

Specific examples would be:

When a new supervisor comes into a section or department ordinarily he has a difficult time for some months, because he hasn't the picture of all these things—so the counselor helps to put him wise.

When a bright ambitious employee is placed in a clique, with rules limiting output, the counselor must watch to see that his ambitions are not frustrated, and yet that he does not get on the outs with the group.

When an employee's performance falls off the counselor seeks out the reason, and helps to remedy the situation.

All these things he does, by virtue of his knowledge, the strict confidentiality of matters told him, his lack of authority, and the respect of the employees which he earns. He does them to increase productive cooperation.

Why did the company put the fourteen men of mixed nationalities in the room together and observe what they said and did?

Partly as a result of its thought that there were unused stores of latent energy and productive cooperation, which could be obtained from the workers under the right conditions, and partly to obtain better material for foreman training, in 1928 the company started to interview all employees in the plant.

The company apparently thought that the interviews would aid in releasing this unused energy and cooperation.

40,000 Complaints

THERE are grounds for thinking that it did, somewhat. But it certainly released a mighty flood of grievances, complaints and unfavorable comment about company policies and practices. 10,300 employees turned in 86,371 comments, of which 41,892 were unfavorable, an average of four unfavorable comments per employee.

"It was startling to find the number of employees who had nursed for many years grievances which they never had an opportunity of expressing to any person of authority in the company. Many of their grievances were trivial in nature, but they were of real importance to the worker."

It was perfectly obvious that the company could expect no large release of latent energy or productive cooperation while these complaints existed.

We show an abbreviated tabulation of these grievances or unfavorable comments in Table I (below).

It must have come as something of a shock to the company to hear the number of things the employees did not like about its personnel policies.

For years the company had tried to line up the best personnel practices, good wages equitably determined, proper hours, a clean well lit, well ventilated plant,

TABLE I

Grievances	Number of comments		
	Domestic companies	Non-domestic companies	Total countries
Management	90	1045	1135
Smoke and fumes...	2	1094	1118
Unions	90	354	446
Piecework (or bonus)	30	1125	1225
Working hours	90	952	1042
Wages	80	2044	2124
Sanitation	80	96	1805
Plant conditions	80	1333	1460
Piecework rate	80	1530	1613
Furniture and fixtures	53	1035	1246
Temperature	53	110	1345
Tools and equipment	82	1283	1384
Safety and health	80	1208	1409
Group piecework	70	1034	1309
Accident program	60	1382	1593
Light	65	1089	1598
Supervision	60	1057	1605
Overhead	50	1324	1561
Promotions	50	1311	1275
Hours	50	810	1413
Hours	40	1297	1699
Hours	40	1203	1285
Wages	28	1284	1499
Hours (or)	22	481	1195
Placement	10	1506	8820
Working conditions	15	124	2021
Unemployment	11	379	3333
Thrift plans	5	305	5809
Vacation plan	4	173	3723

with the best tools and materials engineering science could provide, and extensive health, safety, recreation and welfare programs.

Yet the employees didn't think much of all this—or at any rate were pretty critical. What was the matter? Had the people charged with carrying out the program been slack, so that a "shake-up" of the kind that periodically overtakes police departments was necessary? Was the program unbalanced, or improperly designed that it was shooting so wide of the mark?

These and other questions came up for answer. Interviews were analyzed forward and backwards, statistically, psychologically, psycho-pathologically and

according to the rules of social anthropology. Meantime, surveys of all plant conditions were made. Personnel practices, including foremen's abilities, were analyzed thoroughly. Changes found necessary, mostly of a minor sort, were made.

But, without excusing itself in any way, the company simply could not find, either in the physical conditions of the plant, or in the general personnel setup, any sensible reason why so many employees were dissatisfied about so many things.

Few Workers Agreed about Anything

ANALYSIS of the interview notes showed that while there might be more agreement among the employees in a department about some physical condition, such as the lighting, than there was about whether they liked the foreman, yet even about objective matters there was much difference of opinion. In fact this was the outstanding point that showed up. Employees did not agree about anything.

It is more or less easy to understand why two workers might have different views about a foreman. But why should it so frequently happen that two employees of about equal ability, both with good eyesight, doing the same sort of work should have different views about the adequacy of the lighting? If they do, why do they?

Psychologists Dig Deep

THE psychologists dug pretty far down into the realms of the unconscious, and far across into the mysteries of social interrelationships, to find the answer to this question, and an explanation of the anomalies that the whole program had exposed. They could not find the answer by theorizing, so finally designed the plan of putting the fourteen workers together in a room, and observing their conduct, in the hope that that experiment might provide it.

There they did get the answer, for example:

The complaint that one of these men might make about the group piece rate system was seen to be due not to any basic fault in the system itself, but to the fact that he wanted to turn out all the work that he could, while the rules of the clique he worked with did not permit him to do so.

The complaint that a worker in the back of the room might make about the temperature was not due to any fault in the ventilation, but to the fact that the man wanted to get up to the front of the room, where the "aristocrats" worked.

It was a tradition, perhaps based on actuality in the past, that the men up front were better workmen than those in back. So the fellows up front worked harder and maintained the tradition, though they were really no better than the men in back. The men in back were held back psychologically in their output because they were supposed to be inferior. So the men in back made complaints about wages in general. The men up front made few.

It is all very silly—but it is how things are, until they are corrected at their base. This the company hopes to do by its personnel counseling.

Early Light Experiments

How did the company come to start on this million dollar research? It did not make up large plans and then budget for them, but started in a very simple way, and kept going as seemed desirable.

It started, in 1924, by cooperating with the National Research Council in a study of the "relation of quality and quantity of illumination to efficiency". Three sets of experiments in increasing and decreasing the amount of light were made over a period of three years.

In the first, output increased with increasing intensity of light, but not regularly. In the second, where a control group working under constant light was compared with a group of workers under increasing light, it was found that both groups increased output. In the third, while the light in the control group was held constant, the light for the experimental group was decreased. Output for both groups increased.

Screwy Results Obtained

THESE results were "screwy". Light by itself must be only a minor factor in efficiency. This was confirmed when two girls were put in a locker room, the light turned out, and only a little light allowed in, such as might come in through a crack in the door. The girls maintained their efficiency.

After this experience the company decided on further research to try to find out what really would cause changes in efficiency. So five girls were put into a room to work together. All sorts of changes were made, in rest pauses, wages, methods, hours, etc. Production kept on going up, and the company began to see the first glimmerings of the complication of factors involved.

It was then that it concluded that there must be a vast amount of employee energy and cooperation not being used under ordinary factory working conditions, and set up its vast interviewing program to see if that would release these energies.

Tries at Releasing Energy

THE interviewing program did not release much extra energy, but it did release an unexpected flood of complaints. No satisfactory explanation for the complaints, with all their contradictions and inconsistencies being found, but it being evident that they were responsible for the lack of full cooperation, the experiment with the fourteen men was tried. This provided a theory to explain complaints.

So through the method of "personnel counseling" the company is now testing out the theory, trying to reduce dissatisfactions, and release the latent energies and full productive cooperation of its employees.

Company Executive's Viewpoint

FOR fifteen years these studies have been going on, studies which we estimate will have cost the company well over a million dollars before they are completed. What has the company got out of them? It appears to have made no financial measurement, and is very modest in its claims, as witness the statement of Mr. C. G. Stoll:

One may well ask what success our management has had in applying these developments to the human problems of the business, since this is a phase of the work not directly discussed by the authors. Throughout the course of these studies, the points of view which were emerging were frequently lifted out for application to current situations. At the Hawthorne Works, where the studies were made, there was continuous use of the better understanding of human reactions which was developing, not only in dealing with specific situations but in training supervisors in more human and effective methods of dealing with their workers. Much experience has been had in trying out and testing the findings of this research in real work situations and it seems clear that the knowledge acquired has been increasingly helpful in our efforts to create a better relationship between supervisors and workers, the kind of relationship which contributes naturally to proficiency and a high state of morale.

We have made some rough calculations, based on the printed figures available. They seem to indicate that if the personnel counseling program is applied to ten thousand employees, increasing their average output by 1% the gross gain would be \$300,000 a year. Part of this would go as the cost of the counseling, another part to employees in increased earnings, and the balance to the company in reduced labor costs.

As near as we can calculate, if the fourteen wire and soldermen had not restricted output, they would have done 11% more work. If we assume that under normal conditions the company would have 40,000 employees on its payroll, and calculate the gross gain if the program were successfully applied to all, and raised output to the maximum, then the gain would be over \$12,000,000. The company can reasonably expect to get some portion of this, and is thus certain to get back its investment in research.

The Art of Human Collaboration

BUT perhaps monetary considerations are not the most important ones in research of this kind, for as Elton Mayo says:

Can anyone doubt the need for inquiries of this type? The spectacle of Europe, erstwhile mother of cultures, torn from end to end by strife that she can by no means resolve, should give pause to the most "practically-minded", should make such persons ask what type of research is likely to be most practically useful at the moment. The art of human collaboration seems to have disappeared during two centuries of quite remarkable ma-

terial progress. The various nations seem to have lost all capacity for international co-operation in the necessary tasks of civilization. The internal condition of each nation is not greatly better; it seems that only a threat from without, an unmistakable emergency, can momentarily quiet the struggle of rival groups. In this general situation it would seem that inquiries such as those undertaken by officers of the Western Electric Company have an urgent practical importance that is second to no other human undertaking. How can humanity's capacity for spontaneous co-operation be restored? It is in this area that leadership is most required, a leadership that has nothing to do with political "isms" or eloquent speeches. What is wanted is knowledge, a type of knowledge that has escaped us in two hundred years of prosperous development. How to substitute human responsibility for futile strife and hatreds—this is one of the most important researches of our time. It is our hope that the inquiries described in this book are the beginning of a small contribution to such knowledge.

Management and the Worker

THE above is a digest and review of "Management and the Worker", by F. J. Roethlisberger and William J. Dickson. (Harvard University Press, Cambridge, Mass. 615 p. Price \$4.80.)

The book describes, in full detail, all the studies in the Hawthorne plant of the Western Electric Company right from their beginning fifteen years ago. It is the first time we have had a full account of them.

For the purpose of logical scientific presentation the authors describe the studies in chronological order. For our digest we have read the book Chinese fashion, starting with the last chapter, and working forwards. We have an idea that they might have written a more interesting book, if they had not been so logical in the order of their presentation, and had included much more material about their current work.

This is unquestionably the most outstanding book on industrial relations that has yet been published anywhere, anytime. We do not see how any personnel man can expect to meet the critical labor problems of the immediate future without having read it, and without applying to his own situation the principles set forth in it.

We May Study Psychology or Sociology, but We Shall probably Never Know What Goes on Inside a Worker's Brain. But We Can, by Scientific Study Learn How to Plan Our Relations with Him in a Better Way than We Do Now.

Industrial Uses *for* Applied Psychology

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INTEREST in determining the areas in industrial personnel administration in which psychology might prove to be of most immediate service led to the present survey. The general aim was to define directions in which instruction in industrial psychology might approach the more immediately practical aspects of personnel work and in which research in the field might yield more directly applicable results.

Five Most Important Problems

THE obtained results indicate that the five most promising areas are:

(1) The selection and placement of workers, with reference to improvement in the methods involved.

(2) Supervision of industrial processes, with the development of better methods as the objective.

(3) Job training, for the development of greater efficiency and personal satisfaction.

(4) Worker-security for the development of a more satisfactory outlook.

(5) Worker-opportunities, for the improvement of chances to exercise initiative and leadership.

The initial problem was that of determining the major areas of human problems in industrial management, and next that of discerning the most pressing problems at the present time for effecting better industrial relations. Two different criteria were used:

(1) The extent to which given human factor problems were dealt with in

published works in the fields of personnel administration, industrial psychology, labor economics, and industrial engineering.

(2) Ratings as to the relative importance of stated problems in the field, by industrial personnel administrators, non-personnel industrial administrators, teachers, consultants, writers, and students.

The first step in the procedure consisted of the examination of twenty-nine different books in the fields indicated above. The tables of contents of these books were studied for topics bearing upon personnel work. In this way the preliminary list of problems was made up. Then the relative significance of the different problems was determined by computing the average amount of space devoted to them by the authors.

Finally, twenty-three of the problems evaluated by the above procedure were selected and submitted in questionnaire form for rating. Eighty-five personnel technicians and administrators, forty-nine factory employees, and forty-one university students served as raters. Each rater evaluated the different problems in the list, by the use of a suggested five-point scale with steps as follows: (1) *very important*; (2) *above average importance*; (3) *average importance*; (4) *below average importance*; (5) *not important*. The problems were rated as to importance for the improvement of personnel relations in the future.

In order to secure a more or less generalized statement from the raters and at the same time obtain some indication of the reliability of their ratings, each rater was instructed to list in the order of importance, with the most important first, the five problems in the whole list which they considered to be the most important.

Personal Problems Head List

THE obtained results are presented in Table I. Here the rank order of the problems is shown, based upon the ratings obtained from the different groups. Also, general indications as to the extent of agreement among the groups is to be observed.

These results clearly indicate the relative importance of the different problems, as judged by the different groups. It appears, according to those best qualified to rate the problems, namely personnel men in industry, that problems in the methodology of selecting and adjusting the worker to his work are of very great importance for the improvement of personnel relations; while the problems that are removed more and more from the immediately personal in the work situation are less and less important. "Improved methods of selecting and placing workers", "better methods of supervision", "development of better training methods", "development of a more nearly secure future", and "chances to show initiative and leadership" are ranked as of the greatest importance; while "better home conditions", "better community conditions", "reductions of distractions such as noise, vibration, etc.", "development of recreation and entertainment", and "reduction of monotonous operations" are rated as least important.

Present and Anticipated Needs

IT is to be noted and kept in mind that these problems were evaluated with reference to the future, that is, with reference to improvement in personnel relations in industry. The ratings probably indicate the present status of conditions in each area as much as they indicate anything else. They indicate present and anticipated needs. The rating of problems in the selection, placement, and adjustment of workers to the work situation as of greatest importance, for example, does not

TABLE 1
RANK ORDER OF PROBLEMS ACCORDING TO THEIR ESTIMATED EFFECTIVENESS FOR IMPROVING PERSONNEL
RELATIONS IN THE FUTURE

RANKED BY PERSONNEL EXPERTS (%)	RANKED BY				
	Personnel Administrators (111)	New Order Management (111)	Academics (100)	Engineering Students (100)	Personnel Engineers Administrators (100)
1. Improved methods of selecting and placing workers	3	2	1	1½	1
2. Better methods of supervision	2	1	2	2	1½
3. Development of better training methods	1	4	4½	7½	3
4. Development of a more nearly secure future	4	3	3	1½	8
5. Chances to show initiative and leadership	8	5½	7	3	2½
6. Development of collective bargaining or cooperation for workers	5	12	4½	2½	5
7. Improved methods of promotion and transfer	7	7½	9	10½	13
8. Better adjustment of employees to the job and the working environment	6	5½	1	5	9
9. Better accident prevention programs	9	7½	12	13½	7
10. Job analyses and job specifications	11	10	11	7	6
11. Development of methods of testing and rating	11	15	7	4	2
12. The learning by workers of how to get along better with other people; social adjustment	12	11	8	11	19
13. Improved illumination	14½	9	14	1½	20½
14. More attention to health service	13	16	14	9	1
15. Development of time and motion study methods	16	13	17½	2	14
16. Improved methods of pay	14½	17	16	2½	4
17. Elimination of fatigue	18	18	14	32	11½
18. More consideration to atmospheric conditions	17	14	21	16½	22
19. Better home conditions	19	19	17½	13½	16
20. Better community conditions	21	20	2	7	17½
21. Reduction of distractions such as noise, vibration, etc.	22	21	19	15	23
22. Development of recreation and entertainment	20	22	22	22	15
23. Reduction of monotonous operations	23	23	23	23	17½

indicate that personnel men have not recognized the importance of getting the right man for the right job, but rather it indicates a pronounced interest in meeting specialized requirements in job-performance with as little waste of the human factors as possible. Or, the rating of problems in the reduction of monotonous operations as of least importance does not mean that such problems are unimportant; rather, it may mean that the industrial process has already been adjusted to take care of the major needs in this direction.

In any case, it would seem that persons who are interested in personnel work

in industry would find their most immediately practical opportunities in work toward the improvement of: (1) methods of selecting and placing workers; (2) methods of training and supervising the worker in his tasks, and (3) the personal adjustment of the worker to his job.

1. *Professor James P. Porter of Ohio University, Professor Russell J. Greenly of Purdue University, and the Duncan Electric Manufacturing Company of Lafayette, Indiana, co-operated in gathering the data for this study. For this assistance, the writers express appreciation.*

2. *Reliability coefficients for the judgment of the various groups are: for personnel administrators, .94; non-personnel administrators, .84; academicians, .88; psychology students, .89.*

Neither Employee nor the Companies Would Really have Wished to Bring about the Dreadful State of Affairs Here Depicted—Affecting Ambitions, Home Life, Community Relations. What Similar or Other Desirable or Undesirable Conditions May be Produced by Rigid Rules in Industry.

The Seniority Curse

BY FRED W. COTTRELL

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THERE are many unsatisfactory and unwholesome conditions among the million men in the railroad industry. These conditions impair efficiency, constitute an economic waste from the point of view of both the railroad companies and the workers, and create a dangerous, unsettled human situation which helps spread unrest.

Few railroad men can be said to be well adjusted to their surroundings. Few have the feeling that they are important; that life has enriched them with what they need to make existence satisfying to themselves.

"Boy, Keep Away from the Railroad"

THIS is true despite the fact that superficially it would seem as if railroadmen, protected by their unions, are very much satisfied with themselves and with their work. Their deprecating remarks concerning railroading as a career are generally taken by an outsider to be part of a modest pattern of behavior that has little or no relationship to actual attitudes entertained. It would seem as if their remarks expressing dissatisfaction with their lot could have little relationship to the security and good working conditions which they seem to enjoy. "Boy, keep away from the railroad"; "Thirty years on the railroad, and what have I got to show for it?"; "If I had it to do all over again, I'd keep the hell away from the railroad"; are but a few of the expressions heard from engineers, firemen, trainmen, and signal station operators.

These expressions represent real dissatisfaction, not superficial verbiage, to most of the railroadmen making them.

Young Workers Become Disillusioned

DESPITE a system of seniority that would seem at first glance to make the older men secure, there is much lacking in the security of the average personality on the railroad. It comes as a surprise, to an outsider, to know that most railroaders are afraid of promotion; that changes in their routine work are promoters of anxiety. Upon first receiving work on the railroad, a young man tends to have rather strong incentive to do his job well, desiring greatly to make an impression upon his superiors. He is eager to learn and is, as a rule, self-confident in his ability to do his work well. As time goes on, he tends to lose confidence in his own ability. He often becomes thoroughly disillusioned, disgusted, dissatisfied.

What are some of the causes of this dissatisfaction? And what are the remedies? In seeking the answers, let us first get a picture of the different classifications of railway labor.

Among railroadmen, the "Big Four," engineers, firemen, conductors, and trainmen are organized into the strongest unions. They regard themselves as the "aristocrats of labor" in America. In their view, all other railroad workers fail in some detail to qualify fully as railroad workers.

Machinists, boilermakers, and other shop men rate next to the Big Four in the hierarchy, then come bridge and building, telegraph, signal and telephone workers, section men, and finally, hardly recognized as railroad workers at all by the other men—the clerks.

We immediately notice two curious facts. The members of the Big Four regard themselves and are commonly considered as unadaptable to all other occupations, in the life of the nation. At the other end we have the clerks, who though looked down on by the Big Four, nevertheless have a knowledge of accounting, filing, stenography, etc., which make it possible for them to gain employment in practically any business. In between, we have other groups, which may or may not be qualified for employment in other industries.

The Big Four

THE Big Four, most closely tied to the railroads because of their real or imagined uselessness in any other walk of life, base their claim to aristocracy on the fact they are the most loyal unionists in the country. The strength of this loyalty is doubtless due to the conviction that their union is their sole protection for their sole means of livelihood.

On the other hand the despised clerk, poor devil, is the least loyal to his union, having the least need to lean on it, to protect his job.

In between, are the shopmen and others, varying in their status as railroaders as their degree of freedom decreases and loyalty to their unions increases.

A Dangerous Union Rivalry

IT is a peculiar and unexplained fact in all this that the chairman of the so-called Railway Labor Executives Association, the co-ordinating bargaining agency for the 21 railway labor unions, is the president of the union of the despised clerks. Of course, his influence is disputed by the trainmen, who, in the last wage negotiation, insisted on their own separate agreement. Unquestionably the rivalry between these aristocrats and their inferiors among railroad men will delay rehabilitation of the roads under the joint committee with management.

What a strange state of affairs! Let us realize the situation in more detail.

As their major protective device, the railway trainmen work under strict seniority rules. These appear to have been set up initially to protect the men against what they feared might be discrimination and favoritism by the company in the early union days. But it is evident these rules were intended also for protection of one craft against another and even one worker against another. There has since been added to these explanations the theory that the older men have a greater right to the jobs than the younger, in fact that a man invests his time in his job, and the size of his investment which is spoken of by railroad men as a property right, is proportional to his time on the job.

These views of seniority and job rights are probably in part merely normal developments of a social group and partly rationalizations. The adoption of rigid rules implementing them however, would appear to have turned out to be the worst curse that could have descended on the trainmen themselves.

Agonies of the Seniority System

THERE follows extracts from a research report in the railroad field, to show how badly and how inhumanly the present system actually works:

The bulk of firemen and brakemen are recruited locally and tend to accumulate seniority on the division on which they "broke in" or received their student training. Seniority for train and enginemen is usually confined to a single division and transfer is extremely costly. As a student a fireman or brakeman is assigned the least desirable runs and is constantly on the move. Today he is working out of this point, in place of an absent regular man, tomorrow he may be deadheaded to some other point to handle a work train. Next month he may be idle only to be called on short notice to bring in a train that was too long delayed, to handle an extra glut of business or work connected with a derailment, washout, or other emergency.

He must be available to the "caller" at all times to go wherever business demands. When he finally makes the "extra board" at a particular division point he usually will have had temporary sojourn in all points on the division.

If he has any consideration for women he will delay marriage until he can expect at least a regular pay check and some definite stay at a given point. When he marries it is likely to be to a girl much younger than himself. But in the meantime the morality of his associates, and his break with most of the controls which affected him while a permanent member of a family and geographic community, usually serve to cultivate a growth of wild oats to be harvested by the novice. Habits so acquired are not easy to break, even after marriage, when frequent "bumps" make it impossible to move wife, furniture, and the accoutrements of conventional living as frequently as the job changes.

Many times an assignment to a "work train", a branch line, or "extra section" of a regular train is for a definite but short period, and the expense of moving to permit family life to go on is not justified by the duration of the job at that point. The mobility of such early years is hardly a promising foundation for marital fidelity or conventionality. When the more stable basis comes, stay at any one point is definitely terminable.

Lines of Promotion Fixed

USUALLY promotion runs from freight fireman to passenger fireman, to freight engineer to passenger engineer, or similarly for the brakeman and conductor.

Hardly has a man earned a good permanent run before he is again "geographically demoted" by being required to take a less desirable location but advanced rank or required to give up his "running rights". Slowly he again earns the right to permanent location in a "good" town, only to be sent into the "sticks" in passenger service, to work up and again be torn up by roots and redeposited.

Frequently he may be required to move because of a change in the number of trains, necessitated by business conditions or technological improvements, change in rank due to death, discharge or pension of someone higher up on the lists, or the fact that someone with more "whiskers" has an opportunity to "bump" back to a point to which, for one reason or another, he had formerly refused to bid.

Twelve to 50 "Bumps"

A MAN in the train service may normally expect at least a dozen such changes in location of his home terminal, and the number might, during transitory times such as those occasioned by war, depression, geographical shift of industry and technological upsets, easily reach fifty "bumps" during continuous employment.

This mobility accentuates the difficulties of marital adjustment. It is dangerous to obey the injunction of the real estate dealer and purchase a home for it frequently must be rented or stand idle while the head of the house is acquiring the "seniority" to return to the terminal in which it is located. Neither alternative is particularly desirable. If the house be rented the renter will want assurance that he will not be

forced to move which, if given, means that home ownership has offered no advantage to the owner. If he doesn't give the renter a lease a less satisfactory tenant, who himself may be "bumped", is likely to be acquired with unsatisfactory care of the property probable. The other alternative to leaving the house idle is for the mother and children to occupy it permanently while Dad is "bumped" about until he can again live at home.

Thus separations occur that after some time may gradually merge into desertion or divorce.

If he rents, the road man suffers again from his mobility. Landlords know that every change of tenant involves additional expense, idle waiting time, new demands, and that highly mobile tenants are not likely to take good care of the property. So the railroader pays a high rent for inferior housing, which is far from the character usually associated with persons of the same income permanently located. If the furniture is rented it will seldom be well cared for, and if he purchases his own the constant moving, packing, and consequent breakage, refitting and relocating will quickly reduce even good furniture to mediocrity.

There is at best little satisfaction in entering civic affairs in a community from which you may at any time be removed. Work on schools, recreational facilities, churches, or other local facilities is seldom a part of the activities of these railroaders.

What may be purchased through gift of money can easily be secured in the railroad town. What involved careful long-time planning, continuous personal interest, enthusiastic participation, painstaking administration will be noticeable by its absence.

The railroader, like many urbanites, regards the provision of public service as a purchasable commodity, to be secured through the pecuniary nexus: Taxation, admission fee, or public contribution seldom arouse active opposition, but this is the extent of public duty to mobile railroaders. In the community, but having no permanent stake in it, they expect to pay their way as they go along, and let others do likewise.

To occupationally connected groups, such as women's auxiliaries, lodge benefits, or collections for the dead, injured, or indigent, they give generously and make few demands for an accounting. They lend little support for *county* children's home, *municipal* welfare programs or other public activities.

Railroad Men Provoke Community Hostility

THIS fact is productive of hostility amongst the small business men, church leaders, and other civic volunteers who emphasize the importance of Main Street's program for schools, churches, streets and parks. It is the subject of much condemnatory gossip, and is reflected in the jealous envy with which the expensive cars and dress of the road man's wife and children are greeted. It is summed up in such caustic comment as "they can buy a new car every year but they never give a

sick. I go to the church. The soul of the railroad man is highly affected by his mobility.

"We can't plan to have Johnny in the Christmas play because his father may be 'in' right then and we want him to be home." "Mary can't promise to come at that time because her father may want his dinner and he likes to have the children at meals." "I can't join the bridge club because I want to be with John when he is home and I might have to miss too many times." "We did want to have Sunday dinner with the Browns but Will is going to be out and we have to have our dinner Saturday night instead." "We'll go to the benefit if John is in and has his rest, but I can't buy a ticket because he may want to sleep." "We don't want to sign up for that series because you never know whether you can go or not." "The boys were so disappointed. They planned to go fishing with their Dad on the Fourth but there was an excursion and he had to take it out." "I had the nicest Easter outfit and then we couldn't go to church because Henry was called at nine o'clock."

These are typical of the irritations which beset the life of the railroader's family when he is still on unscheduled freight or the extra board, which usually occurs while his family, if he has one, is young, and when the demarcation which this sort of life serves to make between the railroader and others, and between various railroaders, is most important.

Meals may be required at any hour; sometimes two or three series of meals in a day must be prepared depending upon school schedules and those of men on various shifts. Car inspectors, for example, eat their lunch when they can get it. The noon meal may come any time between eleven and three, depending on the arrival of non-scheduled extra trains, or the amount of "running repairs" that have to be done.

Community Participation Impossible

THE rest of the community,—its schools, its churches, lodges, bridge clubs, official meetings of boards of trustees, town councilmen, benefits, socials, theaters, run on a time schedule, that is much more definite and therefore permits more time-planning than is possible for railroaders who operate trains.

Membership in an organization with regular meetings is difficult to maintain and the socializing effect of such contacts is lost. Forms of recreation that depend upon no collaboration with others must be indulged in. In cities, there are continuous shows, night clubs, and restaurants, taxi dancehalls, and other individualized amusements; in rural area, fishing and hunting, pool parlors or saloons are offered; in both, the ubiquitous craps game and other forms of gambling.

May See Children Rarely

IF THE wife and mother attempts to make her family an integrated part of the community, she must conform to its timing. Meals must be ready for the children so that they can attend school and Sunday School. Promises as to their

participation in athletics, school government, and extra-curricular activities must be kept. If this be done, it may mean that the husband and father will see the children only rarely. He can expect that at least half the time his rest will come during the time they are sleeping; their whole day is normally taken at school; if his meals cannot be made to coincide with theirs, and frequently if he is to get any sleep they cannot, he may not see his children at all, unless they give up all plans of their own.

The wife labors under a double difficulty. In the absence of the father of her children, she has the whole problem of discipline. She cannot even threaten "When your father comes home tonight" for that may be at three o'clock in the morning. She must be prepared to have meals ready whenever he comes in, which means constant preparation for the unexpected; she seldom knows in which particular meal her husband will share. She cannot plan with any degree of certainty her own recreation or community participation. If she joins club, church, guild, or lodge and takes office, she may incur the displeasure of a husband deprived of what he regards as his right to her time and attention when he is "in."

Family Life Important

IF SHE does not join, she is likely to be deprived of almost all recreation since she is denied the equivalent of the forms of recreation her husband may have, and if she chooses to go to public dances or any other public place where couples are expected, she is immediately suspected by all the "good" people of the community.

Small wonder that family life during this period is frequently so distasteful and disorganized as to rob later years, when a satisfactory "run" has been earned, of most of its satisfactions.

Yet the very situations that make family life difficult also serve to increase the significance of the family in the life of the railroader. In many cases, it is the only group in which he functions, and an idealized attitude toward children frequently results, making for a romantic indulgence of their whims.

Portions of the above paper have appeared in the American Sociological Review. They are reproduced through the courtesy of the Editor.

Though the Paper which Follows the Editorial Comment Below, is More Technical than is Usually Published in the Journal, it is Included to Give a Full Picture of an Excellent Workmanlike Job of Testing, with No Waste Motions, and Nothing Essential Omitted

Hiring Telephone Men *by* Tests

BY NATHANIEL E. ROSSETT
AND PETER ARAKELIAN
Yale University

THE current upturn in business has brought into prominence again the problem of hiring good workers. And so personnel men are again looking at psychological tests, to see what chance there is that these will aid them.

This seems a good time therefore to briefly outline, when to use tests, how to start using them to best advantage, and give an example of how one company did it.

Where Tests Help

THE first point is that tests are only useful for jobs requiring a fair amount of skill, and that as a job becomes more complicated ordinary methods of hiring, without tests, are apt to let too many duds through. So look over your job situation to see whether and where tests would help.

If you decide you do need tests, or want to give them a trial, the next question is how to go about it. You have three options, (1) to have someone on your staff qualify himself in psychological testing (which would take the best part of a year of intensive study), (2) hire a psychologist experienced in industrial testing, or (3) obtain the part time service of an industrial psychologist. (A small plant might well do this.)

If you decide to hire a man for the job, be sure to seek the advice of an authority on the subject, and be sure that you budget enough to pay your man sufficient salary. In the last business upturn, three companies failed to take these precautions, hired young inexperienced psychologists, and paid them too small salaries. While

apparently the young men were fair at their job, they left in the middle of setting up the testing, for better jobs, and left the companies high and dry.

You can get good work out of a young inexperienced psychologist, if you have him supervised by an experienced industrial psychologist, acting in a consulting capacity.

With the aid of your employment department, the psychologist will study your job analysis of the jobs you want the tests for, to see what psychological factors are crucial to success on the job. If you have no job analysis he will have to make one, or he may use your training syllabus.

He will then consider what tests there are on the market which might be suitable. He will probably design some extra tests to be used as well—ones which fit the special conditions of your plant. He will then have what he will call a battery of tests. This is always advisable, as a single simple test is rarely accurate or reliable.

Six Months' Work

HE WILL then consult you as to whether there is any measure of workers' abilities in the plant—foreman rating, production records, or examination at end of training period. He cannot tell, and you cannot tell, whether the tests are any good unless he has this.

He will then give his tests, either to new people who are being hired and/or to employees on the payroll. He will then use a variety of more or less complicated statistical formulæ to discover whether the tests are any good, which parts of them are good, and the relative importance of the several parts.

He will then take out the dead wood, arrange the scoring so that the most important parts count most, and give you an estimate as to the percentage of men who will do good work on the job at different passing grades in the tests.

He can then go ahead and hire good workers for you.

All of which would probably take the best part of six months, if you give him every possible aid, and facilities in your plant are reasonably good.

Something Simpler

BUT isn't this all too scientific, and mathematical and complicated?,' the reader may ask. Can't we have something simple and practical? Yes, of course you can, if you want to waste your money on it. It won't pick out good workmen for you, even though it may look as though it ought to.

We give two examples, advocated at one of the university industrial relations conferences, where economists give talks on psychology.

An airplane company has a simple practical test which consists of two applicants for jobs turning over wooden disks, painted yellow on one side and black on

THE OTHER: The fellow that can turn over the most in ten seconds gets the job. That is all.

It was suggested by the economist that knowledge of this sort of thing should be widely spread, because in some unknown way, it would solve the problem of a skilled labor shortage.

Unemployed Toss Wooden Flap-jacks

WE CAN imagine the employment man, who has to sit and watch the two poor unemployed men who would do anything to get jobs, tossing wooden flap-jacks for dear life, making up little rhymes like:

I diddle dee,
Phlin phlan,
By Gosh, I see
A very good man.

Of course, this sort of medieval mumbo jumbo was tried out and discarded by psychologists long before airplanes were invented. But it is simple and practical, and advocated by economists.

The second case is that of an electrical manufacturing company. Apparently a foreman in charge of the packing room, where girls were sewing burlap wrapping around apparatus, thought the girls were too slow. So he went over to the personnel department with his troubles, and they rigged up a psychological test for him in half an hour.

The Doughnut Spiking Competition

THIS consisted in having the girls thread little rubber doughnuts on a wooden stick with their left hand, while they picked up some more little doughnuts with another stick with their right hand. The foreman was much pleased, and his troubles with his girls are now reported to be over.

Simple and practical, if you like your tests that way. But why not give the money this sort of stuff costs to charity.

The simplicity and practicality of this doughnut spiking business appealed so much to an oil company personnel man present, that he arranged then and there to send two of his employment men five hundred miles, to the electrical manufacturing plant to learn how to do it.

What they were going to do with it in the oil business, when they had learned it, we didn't find out. But it was simple and practical, and recommended by one of the picked delegates to an industrial relations conference held at a leading university. Therefore, we suppose, they thought it must be pretty good for something.

At this point perhaps we should say, "And so long until tomorrow." (Editor.)

N. Y. Telephone Company's Experience

THE chief purpose of psychological tests of aptitude is to aid in predicting the potentialities of an applicant's success in the occupation being considered. Bingham defines aptitude as "a condition indicative of a person's power to acquire specified behavioral patterns of interest, knowledge and skill. It is a present condition with a forward reference—a condition or set of characteristics regarded as symptomatic, indicative of potentialities."

The problem of "vocational selection" or the selection of suitable applicants for any job is a serious one to every employer. The many and varied types of skilled occupations found in modern industry demand reliable and efficient methods in the hiring and allocation of workers.

Today the New York Telephone Company, representative of the Telephone industry as a whole, has undoubtedly as many varied types of scheduled occupations as will be found in any modern industry.

During the early days of its relatively short term of existence and before the business became too complex, the qualifications most sought in the applicant for employment were a sane mind and a sound body. Those qualifying in these respects were engaged with the knowledge that they could be used readily on some type of work for which they subsequently demonstrated fitness. However, as the business grew the need for employees with specific qualifications arose and in recognition of this need the Company focused greater attention on the selection of its personnel. Employment Bureaus were established and manned by interviewers fitted, by experience, to recognize in the applicant the qualifications peculiar to the vacancy to be filled. In this way, the growing complexity of the business was fairly well met at a cost consistent with the conditions of employment.

Why the Company Started Testing

ON THE introduction of Panel Type Dial Central Offices, with their complicated circuits and delicate equipment, it became apparent that the personal interview in itself was insufficient to determine the applicant's fitness for a complicated job and a series of simple written and mechanical tests covering general aptitude were introduced to substantiate or supplement the judgment of the interviewer. While this innovation increased the percentage of satisfactory selections considerably in the case of potential Dial Central Office Maintenance men (Switchmen), it was apparent that a more accurate and reliable method would be desirable. Coupled with the growing need for the selection of the proper individual for specific jobs, this recognition may well be interpreted as the purpose of this study.

More specifically, the objective was to construct a reliable and valid test battery which would supplement the judgment of the interviewer in the selection of those to be trained for the job of Switchman.

Training Course

THE results of a total of 31 subjects were used in the construction of the test battery. These subjects represent an average cross-section of applicants who presented themselves at the employment office of the New York Telephone Company. They offer various degrees of training ranging from elementary grade to college level of study. No attempt was made to categorize the applicants on the basis of education or skilled training in other fields.

All subjects received the same preliminary training in the Panel Dial School before starting work as switchmen. This training was initiated by a review course in the Elementary Principles of Electricity. The course consisted of three parts; (1) ferromagnetism and electromagnetism, (2) alternating current circuits and (3) current calculations. Here it was observed that a knowledge of arithmetic was essential for success. Of assistance to the student taking the course was any general information concerning the subject matter that he may have acquired by academic training, home study or any other means.

Following the course in principles of electricity the subjects were given a circuit study course which taught the application of the material learned in the first course to a collection of equipment symbolized as wiring diagrams and schematic drawings. The subjects learned to "trace" the wiring systems of the various pieces of equipment and to associate the diagrammatic representations with the original apparatus located in the Panel Dial Central Office. The term "trace" embraces the process of following a line representing a wire until a unit of equipment or an open contact is reached. When an open contact is reached, the line must be retraced to the starting point and a new path chosen. This process readily simulates maze learning of a comparatively high order of complexity. Circuit description sheets are provided as an aid to "tracing" and learning circuit function.

As a corollary to circuit study, short "Relay and Apparatus Courses" were given in which the subjects were taught to operate and adjust the various pieces of equipment using specific adjustment instructions issued by Bell Telephone Laboratories and called Bell System Practices. Upon completion of these courses, the subjects were sent as apprentices to a Central Office to work on the equipment studied.

Tests Based on Training Syllabus

THE construction of the test battery was based on the principles formulated by Hull in the introduction to his book on *Aptitude Testing*. "The most accurate method of determining the aptitude of an individual for a vocation or other activity is the test of life itself. The ultimate test must always be the learning of the vocation in the ordinary manner, after which we may observe the degree of the individual's proficiency when he has reached the limit of his training."

The training period in the Panel Dial School was a fertile source for test infor-

mation. The review course in elementary principles of electricity, divided into (1) ferromagnetism and electromagnetism, (2) alternating current circuits and (3) current calculation, suggested components for the battery. To test this first stage of training a series of 40 items was compiled. It included 31 multiple choice statements based on ferromagnetism, electromagnetism and alternating current circuits and 9 problems concerning current calculation. Although given to the subjects as one test, the scoring was divided into three parts. Test 1 included units 1-14; Test 2, units 14-29; Test 3, units 29-40. Closely associated with these tests was the fourth—an arithmetic test containing 8 problems in addition, subtraction, multiplication and division of fractions and decimals.

The courses in circuit study and relays and apparatus involving circuit tracing and use and adjustment of apparatus were a source of 5 additional tests. Tests 5 and 6 are alike in two ways: first, they are both tests of mechanical aptitude as judged by knowledge of apparatus function and adjustment and, secondly, they both concern the same piece of apparatus. Test 5 consists of a series of 10 questions based on a diagram of a 4-C Buzzer which has its various parts indicated by arrows and numbers. A complete understanding of mechanical function is necessary to answer the questions. Test 6 is made up of 2 types of questions—multiple choice and direct response, and has 12 parts. It is based on instructions for the adjustment of apparatus. The instructions have been prepared by the Department of Development and Research of the Bell Telephone Laboratories, Inc., and are known as Bell System Practices (Apparatus Requirements and Adjustment Procedures).

Complicated Maze Like Complicated Wiring

CIRCUIT function and circuit "tracing" were more difficult to prepare in test form. General intelligence indicators seemed to offer little forecasting ability for this aptitude. Men with electrical engineering degrees were as apt to fail at this point as were more poorly equipped individuals. Tracing is fundamentally trial and error learning. Differing only in degree of complexity from the lower form studied in animals, it should be readily amenable to the same form of measurement used in animal studies—the maze. To test this aptitude, therefore, three mazes were incorporated in the battery as Tests 7, 8 and 9. The subjects were required to trace through from start to finish of the 3 mazes which are successively more complicated and difficult.

The battery of tests was given to students upon their entrance into the Panel Dial School. The testing was conducted under rigidly controlled conditions as regards to instructions, time limit and scoring.

Tests Compared with Ratings

SINCE the occupational activity of the training period does not lend itself readily to accurate measurement as behavior or product of behavior, the criterion score to be used as a basis of comparison for the aptitude testing was determined by the

ranking method described by Hull and classified by him as "subjective impression criterion." The ranking was done by the instructors in the Dial School. Since each instructor was in personal contact with each student at least once each day, circuit instruction being done on an individual basis, their intimate observations were valuable in the determination of the criterion. Weekly reviews of the standing of the students were held under the direction of the Supervisor of Training. Inasmuch as this was essentially the method of determining whether or not the student was successful in the school before the test battery was considered, the criterion score thus secured was deemed reliable. This procedure was continued until 50 men who had had no previous Panel Dial training had completed their schooling and had been ranked by the Faculty and Supervisor. Where any doubt existed as to the student's place in the ranked series, as might occur when two or more instructors disagreed as to a student's ability, the student was dropped from the study group.

TABLE I
STUDENT AND INTERCORRELATION COEFFICIENTS OF THE TEST BATTERY, ARRANGED FOR CONVENIENT EXAMINATION

VARIABLE NUMBER	VARIABLE NUMBER							
	1	2	3	4	5	6	7	8
1	.420							
2	.456	.839						
3	.462	.824	.635					
4	.518	.479	.194	.472				
5	.340	.128	.453	.454	.437			
6	.486	.192	.546	.534	.564	.609		
7	.401	-.189	-.093	-.260	-.393	-.437	-.449	
8	.215	-.110	-.113	-.246	-.411	-.429	-.480	.757
9	.257	-.179	-.208	-.192	-.345	-.034	-.309	.115
								.280

The ranked series of 50 students was then transmuted into units of amount on an ordinary 10 point scale and served as the criterion score for this study.

Statistical Computations

THE computation of correlation coefficients conveniently arranged in Table I showed that all tests have a high correlation with the criterion score and a rather high intercorrelation. The latter might have been expected in view of the broad aptitudes for which each test was designed. Since the tests can be given at a low cost, are easily scored and therefore, contribute enough to the prognostic efficiency of the battery as a whole to repay costs incidental to their use, they were all retained. Further evidence in favor of retaining these tests, in spite of high intercorrelation, lies in the fact that these tests which have the highest intercorrelation coefficients (Tests 1, 2, 3, 4, 5 and 6) show stronger correlation with the criterion score than do the three (Tests 7, 8 and 9) with lower intercorrelation.

Taking Out the Dead Wood

AS THE next step, the tests were combined in such a way as to yield the best possible aptitude prediction. This step was effected by statistical weighting of each test by use of the multiple regression equation as devised mainly by Tolley and Ezekiel and described by Hull. The equation devised was

$$X_0 = -.21 X_1 + .66 X_2 + .61 X_3 + 1.88 X_4 + .007 X_5 \\ + 1.09 X_6 - .83 X_7 + .53 X_8 - .08 X_9 + 13.70$$

The correlation between the test battery thus weighted and the criterion was derived by the following procedure:

$$(1) R = \sqrt{\frac{P_0 W_1 + P_0 W_2 + P_0 W_3 + P_0 W_4 \text{ etc.}}{P_{00}}}$$

$$(2) R = .6778$$

The multiple correlation coefficient is .6778 with a coefficient of reliability of .853. This corresponds to a forecasting efficiency of 27.2 per cent.

TABLE 2
SHOWING SCORE RANGE AND PER CENT OF FAILURES OF 222 MEN TESTED BY THE NEW TEST BATTERY

SCORE RANGE	TOTAL	FAILURE	PER CENT FAILURE
0-9	3	3	100.0
10-19	6	5	83.3
20-29	10	7	70.0
30-39	25	9	36.0
40-49	51	10	19.6
50-59	76	8	10.5
60-69	42	1	2.4
70-79	8	0	00.0

Percentage of Failures

THE test battery has been given to 222 men who have been trained and released to Central Offices as switchmen or have been transferred because of failure to other departments. Table 2 shows the percentage of failures according to score range of these 222 men.

The Panel Dial Aptitude Test Battery has proven to be exceptionally effective in predicting success in the Dial School. Inasmuch as new employees hired for this craft would have to pass successfully through the Dial School, this test battery can be used as an effective employment test. From a study of the 222 men who have taken the test, we can predict that, with a critical score set at 50, we would have 14 failures out of every 135 men employed. If the critical score were set at 60, there would be employed only 1 failure out of every 50 men selected. It must be remembered that to secure 109 men with a score of 50 or better, or 42 men with a score of 60 or better, would require testing 222 men, if the applicants at the employment bureau

were of the caliber of the students sent to the Dial School during the period in which the tests were employed.

Summary and Conclusions

A battery of 4 tests was prepared and given to 30 subjects. Statistical analysis showed a high correlation between the individual tests as well as high correlation of the tests with the criterion score.

The tests were weighted and computation revealed a multiple correlation coefficient of .6778 with the criterion which corresponds to a forecasting efficiency of 27.2 per cent, a value much higher than yielded by most aptitude tests.

Although the tests of the battery are by design broad in function and tend to measure overlapping function, they were not radically changed because of the simplicity of administration and scoring and the relatively low cost involved.

The writers wish to express their indebtedness to Mr. J. W. Humphreys and Mr. E. A. Staples of the New York Telephone Co., Long Island Area, for cooperation and assistance in the preparation of the Test Battery and to Professor Clark L. Hull for reading and criticizing the manuscript.

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Researches are Usually Impossible Because of a Foolish Convention that Institutions Engaging in Industrial Research are Expected to Pay their Way or Earn their Keep. This Confusion of Research with Commercial Huckstering can Never Prosper.

Personnel Research Federation

Report to Engineering Foundation

By THE DIRECTOR

THE Personnel Research Federation was founded in 1921 under the primary sponsorship of the Engineering Foundation and the National Research Council. Its main purpose was to further the development of scientific studies of human problems, particularly in industry, so that there might be a parallel development with the progress of engineering science.

Since the time of its foundation, in addition to grants from the Engineering Foundation, the Federation has received and spent \$300,000. These funds have been in the form of supporting contributions, research grants, fees, and membership dues.

Main Accomplishments

THE main accomplishments of the Federation are briefly described and some attempt made at appraising their value below:

(1) The first job was to make an intensive survey of employment methods then in use in industry, and the scientific knowledge available by the use of which industry might improve its methods. The results of this study were published in book form, sold widely and became the standard reference manual in major companies. It also became a standard text for use in engineering and other colleges.

(2) This study showed among other things that through misunderstandings of motives, many workers restrict their output. A special study was then made of the prevalence of this, the reasons for it, and what might be done to improve understanding between workers and management. The results of this study were published in book form and widely sold, for use in industry and schools.

(3) A study was then made of the best ways of making sure that misunderstandings are minimized through improved methods of ascertaining employee viewpoints—particularly when talking with them, or interviewing them. This was also published in book form, and ran into more than one edition.

Helps Company Save \$5,000,000

(4) In 1926 the Federation commenced its major study into the causes of accidents among the bus and streetcar operators of the Boston Elevated Railway. This lasted five years, the Federation training the company personnel in the safety measures developed, so that they could carry on. The results of this work have resulted in the Company three times winning the Anthony N. Brady award as the safest transportation company in the country, and obtaining an actual cumulative cash saving in accident costs of over \$5,000,000.

(5) The statistical and theoretic findings basic to the Boston Elevated work having come to the attention of a group of insurance companies writing automobile accident insurance the Federation was asked to make a study of motor vehicle operators in Connecticut. This study led to the formulation of a new basis for premiums on automobile insurance, which is a contributing factor to the decreasing number of auto deaths of recent years.

(6) When the Highway Research Board of the National Research Council undertook to extend these studies further, they called upon the Federation for consultation, and used the Federation studies as basic in their analyses. The National Safety Council has also made extensive use of the Federation material. It may be fairly claimed therefore that the Federation work is a useful contribution, which has aided in the development of safety science, which is succeeding today.

(7) The Federation next received a grant to study the possibilities of developing accurate occupational trends, so that young people might prepare themselves to enter growing occupations and avoid declining ones. The methods of statistical analysis suggested by the Federation have been used in two regional studies, made by other agencies, and are used by the U. S. Office of Education.

Aids Smooth Labor Relations

(8) Under direct grants from the Engineering Foundation the Federation made a series of studies of ways and means of developing and maintaining peaceful relations with employees in the recent years of unionizing activity. These studies were published in the *Personnel Journal* and received wide attention. Many thousands of reprints of them were bought by companies for distribution among their executives.

(9) The Federation has edited and published a magazine called the *PERSONNEL JOURNAL*. This is now in its 18th volume. This magazine goes to over 500 engi-

neering, business and liberal arts colleges, where it is used for classroom instruction. The Journal also goes into some 1200 companies, where it is used by executives to keep them up to date in new scientific findings in economics, psychology, and related social sciences, and in the ways in which they may apply these findings practically.

Member Companies Strike Free

THE value of the Journal may be difficult to appraise. Its circulation has been constantly expanding. A study made in 1937 showed at that time that no company which was a member of the Federation and took the magazine, had had any labor trouble leading to a strike. How far they were aided in maintaining smooth relations with their employees because they had incorporated in their policies and practices the scientific analyses published in the Journal over the years is not known. But it seems more than a coincidence that companies taking the Journal were strike free. Since that time many companies who have had trouble are turning to the Federation directly and through the Journal for aid.

(10) In 1921 there were not fifty companies in the country with personnel departments using scientific methods of personnel work. Today there are at least 1500. There are perhaps 100 now with personnel research departments of their own. The Federation may claim to have aided in this growth, through its magazine, its conferences, its personnel's contacts with company executives, and its researches.

(11) Thus the foresight and wisdom of the Engineering Foundation has been amply justified. The Foundation saw that an organization such as the Personnel Research Federation would be needed, and that once started with the aid of the Foundation, others would join in its support, so that the Foundation could withdraw, and devote its funds to other pioneering enterprises. This is exactly what has happened.

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Dr. Moulton's Advice to Industry

Speaking at a luncheon given to a group of leaders of industry, science and finance by Alfred P. Sloan, Jr., chairman of General Motors Corporation, recently, Dr. Harold G. Moulton of the Brookings Institution renewed his often-made plea for a policy of low prices and increased output. He summarized some of the findings of the study financed by the Falk Foundation, results of which were published in the volume *Industrial Price Policies and Economic Progress*.

MORE PROFITS WITHOUT PRICE INCREASES

In 1936, he said, a certain company increased the scale of its operations from 53 per cent in the first quarter to 69 per cent in the second quarter and effected "more than a three-fold increase in net earnings." This was done with a slight decline in prices. In a single industry ten companies which had operated in 1935 on a 47.9 per cent basis, earning \$41,000,000, increased their scale of operation in 1936 to 67 per cent capacity and earned \$128,000,000 with an average increase in prices of only one per cent.

The economic significance of this kind of experimentation is seldom realized. The disparity between productive capacity and effective consumer demand is widely recognized but it frequently leads to preoccupation with redistribution of income without regard to the necessity for increase in output.

Economists continually stress the fact that no permanent gains can come to any element of the population except as the total amount of production is increased. The point on which Dr. Moulton and his associates are trying to convince industrial leaders is that increasing efficiency through a closer approach to capacity production will result in a relative or even an absolute decrease in prices and thus automatically increase purchasing power.

ADVICE TO LABOR

Increases in wages alone obviously will not accomplish the purpose; first, because they are spotty, leaving large masses of wage earners unaffected and, secondly, because the wage earning class is only part of the population. The farmers and the white collar workers and large groups of the population ordinarily called "middle class," but latterly depressed to very low living level—all these have to be considered in any effective increase of purchasing power.

Labor policy, said Dr. Moulton, during this war emergency "should be focused upon the realization of gains through more and steadier employment instead of upon hourly wage increases. The advances in hourly wages during recent years have not been accompanied by corresponding increases in weekly wages. On the contrary, weekly and annual wages have, on the whole, declined. A far-sighted labor policy can also contribute much to the maintenance of financial stability."

Courtesy Federal Council of Churches in Christ

Dislocation of the Labor Market is Aggravated. Skilled Labor Must Not be Wasted. Increased Unemployment in Unessential Industries Must be Dealt with. Wages, Hours and Over-time Provisions Must be Suspended and Technical Training Accelerated.

Labor Relations in War Countries

DIGEST OF AVAILABLE INFORMATION

IN FRANCE workers get two-thirds ordinary pay for over-time worked over forty-five hours per week. They get normal pay for the first forty hours, no pay for the next five hours, and two thirds pay for the rest of their working time. They may be required to work seventy-two hours.

In England an employer may not hire workers, in certain classifications, without the consent of the government.

In England, where allowances are given by the government to families and dependents of mobilized men, "unmarried wives" are recognized as dependents, provided the worker, who is now a soldier, lived with his lady for six months before he joined the army, and continues to send her at least \$1.75 a week out of his pay.

Jobs for Hitler, Chamberlain and Daladier

THESE are but three of the curious solutions of labor problems, which Messrs Hitler, Chamberlain, Daladier, and company have had to work out.

Though America expects to keep out of this war, personnel men may be interested in what they may face if we do get in to it, and in what their fellow personnel men are up against in England, France, Germany, and other European countries.

French Workers Hit Hard

FRENCH workers seem to be hit harder than those of other countries by war regulations. They were at one time on a forty hour week. This was extended in April 1939 to forty-five hours, after which an overtime rate of 5% extra was payable.

Under present war regulations, in industrial and commercial undertakings the limit is raised to sixty hours per week generally. In continuous operations the limit is fifty-six hours, but this may be extended with permission of the government to seventy-two hours, in the case of work carried out in the interest of national defense or some public service.

In the matter of wages the French worker is also hard hit. He works the first forty hours at normal rate of pay. For the next five hours of work he gets nothing, his employer having to pay what would be his wages into the Treasury for the National Solidarity Fund. For any work over forty-five hours the worker gets two thirds his normal hourly rate, the other third also being deducted by the employer and paid into the National Solidarity Fund. This fund is used for the payment of allowances to the families of men in the army and navy.

In addition, all French workers must pay a national contribution or tax of 15% of their earnings. This also goes into the National Solidarity Fund.

Wages cannot be skied by workers, because a decree prohibits a change in wages determined by collective agreements, and contracts of employment.

German Workers Protected

GERMAN workers used to work a limit of forty-eight hours per week or ninety-six hours per fortnight, with a limit of ten hours per day. Overtime rates of time and a quarter were payable for extra hours of work during the day, work at night, and on Sundays and holidays.

Under war regulations overtime rates are abolished entirely. But the stringency of this regulation may be mitigated in the worker's favor by measures concerning the tax on wages, and concerning prices.

Workers' income tax has been raised substantially, and is payable by those earning more than \$600 a year, or \$60 a month, or 20¢ an hour.

The worker is protected against price increases, because prices in most cases must be brought down in proportion to savings effected by reduced wage costs. Wages and salaries have been stabilized, and prices must be adjusted accordingly.

The Labor Trustees in some districts have directed that instead of reducing prices, employers must pay the savings effected by the abolition of overtime into the Reichsbank, for the Government.

English Workers Still Talking

THINGS seem to have moved much more slowly in England, where after the last war the Government encouraged unionization. Now nothing can be done without the consent of the unions.

The important executive council of the Confederation of Shipbuilding and Engineering Trade Unions had, according to the latest information, only just discussed the possibility of revising hours and working conditions. This is in great

contrast to the controlling orders and decrees immediately issued in France and Germany.

A slight indication of how unions in England are going to take care of the workers, war or no war, may be seen in the fact that some of them have secured by collective bargaining agreements that when they have to drop their tools to duck into air raid shelters, they shall be paid for such time lost.

English Labor Supply Control

ENGLAND seems to have gone farthest in controlling the labor supply, in order to make the best use of men available for keeping industries going, and for the army and navy.

A schedule of reserved occupations has been issued by the Labor Department. This is to ensure that workers, required for the maintenance of production and essential services, are not accepted for service in the army and navy, or take jobs in which their skill and experience will not be used.

An age is printed against each occupation. In general men who follow any of these occupations, whether employees, employers, or who work for themselves, cannot be accepted for national defense, if they are above the age listed. If they are below the age listed they may be used for national defense, only if they are required in their trade capacity.

In regard to certain industries and occupations, the Labor Department may, after consulting with a committee of employers and unions concerned, draw up regulations, which must be laid before Parliament, controlling employment in two ways.

First, advertizing for help by the employer is prohibited. Second, an employer may not hire or rehire a worker, in the occupations concerned, without first getting the consent of the Government. In this way, it is expected that the government can keep track of the distribution of skilled workers, and make sure that the fullest use is made of the nation's man power.

There has also been drawn up a National Register of all persons, showing their name, sex, age, occupation, profession, trade or employment, residence and marital state. This is kept up to date.

French Also Control Hiring

FRANCE is divided into departments or administrative areas. In each of these there is a labor inspector, who is head of the labor mobilization service. This service is responsible for centralizing, throughout the area, all information concerning labor resources, and the demand for labor of any kind in public administration, and in private industry working for the national defense. It prepares schemes for adapting supply to demand.

The labor inspector supervises all labor exchanges and employment bureaus,

public and private. He may for certain occupations or industries confer a monopoly of placing on public exchanges. In such a case a private agency cannot deal with those occupations, and employers must notify the labor inspector of all hirings and dismissals. He may prohibit hiring without his permission, and advertizing for help. Regulations also make it compulsory for private companies working in the interest of national defense to notify the public employment office of their labor requirements not less than eight days before hiring workers.

Provision is made for the compilation of a list, in each area, of workers in certain essential occupations, with information as to their addresses and qualifications.

Workers and Management May Be Requisitioned

WORKERS on this list may be requisitioned by the labor inspector, and told where to work. Individuals may be requisitioned, or there may be collective requisitioning. In fact, the management and entire staff of private establishments, factories, and undertakings engaged in work for the government, or having received notice of orders or subcontracts, or of manufacturing requirements from the government, may be requisitioned.

The requisition order indicates the nature of the employment or service required, probable duration, etc. Persons requisitioned are covered by labor and social legislation. They receive the same rate of pay as the job would normally carry in peace time.

This scheme is set up so that the labor inspector may allocate workers and facilities to the various public services and private industries, taking into account the relative importance of each for national defense.

France has taken over control of all public and private vocational training establishments, and is coordinating their activities. The labor department must keep the education department informed as to the number of skilled workers that will be required in different trades, and the time limit within which they should be trained. The labor department is responsible for supplying the vocational training centres with skilled instructors.

Source of Information

VARIOUS other problems have also been dealt with, by legislation and decree. In most countries the families of mobilized men receive an allowance in addition to the portion of their pay which soldiers send home. Most countries have regulations guaranteeing soldiers and sailors their old jobs when they are demobilized. Social security measures also provide for the continuance of rights while on active service.

The International Labor Office, of which Mr. John G. Winant, former Governor of New Hampshire, is the Director, is making a series of surveys of industrial relations problems created by the war. These are being published in the International Labor Review, under the title, "Social Legislation in Wartime." The information given above was obtained from this source.

What are the Social and Sociological Elements in the Lives of Workers, in Large and Small Communities that Influence Their Efficiency, Their Attitudes towards Their Employer, Industry in General, Unions and Their Political Beliefs?

Company *and* Community Relations

BY CHARLES S. SLOCOMBE

Personnel Research Federation.

A SCIENTIFIC study of labor relations must include a consideration of the environmental factors that influence them. To illustrate the likely nature of the findings from such a study, let us consider some of the effects on workers of life (1) on the country and (2) in the city.

The data which we shall quote are from sociological studies of the differences between rural and urban living. In these studies, rural life is defined as life in communities of 2500 population and less, and urban life as that in communities of over 2500.

City Dwellers Are Heterogeneous

SOME of the differences between rural and urban life, of our workers, which are likely, directly or indirectly, to affect labor relations and create tensions, are the following:

Foreign born and their offspring are concentrated in cities, and the proportion of native white stock is much smaller than in the country. Thus the typical city does not consist of a homogeneous body of citizens, but of human beings with the most diverse cultural backgrounds, often speaking different languages, following a great variety of customs, habituated to different modes and standards of living, and varying from their fellow city-dwellers in tastes, beliefs and ideals.

The death rate in cities is higher than in rural areas. Though influenza, small-pox, malaria and dysentery deaths are lower in cities, they have higher rates for venereal disease, tuberculosis, alcoholism, drug addiction, general paralysis, in-

saults, heart diseases and cancer. Health conditions in cities, as judged by death rates, are today only as good as they were in the country in 1900.

Many Go on Government Relief

THE percentage of the total population on government relief increases with the size of the city up to one million population. The stability of social organization generally is adversely affected by the mixture of people in cities. A mobile population of diverse elements does not develop habits of community responsibility, and concern about welfare needs, and more reliance is placed on governmental social services.

In the city, single life is more prevalent than in the country, families are smaller, and more frequently without children.

The birth rate in cities is so low that they grow and survive through constant migration from rural areas, where the birth rate is higher than is necessary for rural population maintenance.

Divorces and broken homes are more frequent in cities, though there are indications that unhappy marriages are frequent in small towns and in very large ones, the lowest separation rate being in towns of from 50 to 100 thousand population.

Suicide Rate Is High

THE suicide rate is 25 per cent higher in large cities than it is in smaller ones. It goes up as the city increases in size up to 500,000, but for cities larger than this the rate goes down again. In smaller cities under 10,000 population, and in rural areas, the rate is 50 per cent less than in bigger cities.

Crime rates are higher in cities. Urban places furnish three times as many prisoners for state and Federal penitentiaries in proportion to their population, as do rural areas.

Large cities are unfavorable to single family dwellings. Home ownership is rarer. Many more people live in rooming houses, hotels, and eat in restaurants.

Per capita attendance at motion picture theatres increases with size of community.

Urban recreation is distinguished from rural recreation by a greater degree of specialization and commercialization. Opportunities for informal recreation, especially where the cooperation of others is involved are restricted by the limited extent of intimate and personal social contacts. Per capita expenditures for commercial recreation increase directly with city size. Commercial recreational establishments tend generally to provide passive recreation.

The number, variety, and quality of recreational facilities increases with city size. On the other hand, the greatest number and the greatest variety of such facilities per 1000 population are found in medium sized cities. Utilization of these

facilities is also greater in the medium sized cities. And these cities have the highest ratio of park acreage to population.

Loyalties Are Fickle

THE big city man typically moves in, and is a transitory part of, a multitude of social groups and is not permanently attached to any one of them. His loyalties thus are more fickle. He is inclined to greater tolerance, which he sorely needs, in order to live among fellow citizens who are so different from himself in heritage, interests, belief, and character.

The above are some of the indices and symptoms of the difficulties and tensions under which workers, supervisors, and to a certain extent the members of management itself, live in large cities when not at work. How far and in what way do the difficulties of city living spill over into labor relations inside factories?

Why Workers May Seek Managerial Responsibility

TO BEGIN with, it would appear that much of the unrest of workers, and much of their desire to interfere in problems which are primarily the province of management may be due to a lack of adequate family outlets, and adequate group social outlets in city life. In other words, the absence of large families with their managing responsibility for the heads of families, the absence of active participation in clubs and societies with exercise of responsibility as office holder and committeeman, may account for the great tendency of workers to vent their desire for some kind of management at the place where they work.

The tendency of workers to seek to interfere in fields not properly their own was well shown in the attitude of an executive of the Steel Workers' Organizing Committee, who wrote in the *Harvard Business Review*:

"Almost any shop or mill is full of wasteful practices. There are many workers who could *offhand* give the management hints as to how it could save money and put out a better and cheaper product. It may take time to educate most employers to such a program."

This is an example of the curious fact that in an age of specialization in engineering and personnel management, unions of non-specialists are demanding the right to tell management how to run its business.

It may well be true that this tendency is in part due to lacks in the workers' outside life. If more workers had more practice in managing social and athletic groups, they would come to a better understanding of the intricacies and interrelationships of various factors in these groups. They, themselves, would be up against apparent inefficiencies and conflicts in their own groups, and would have experience through committees in eliminating them, and thus it would gradually dawn on them that the management in the place where they work was probably busy on its efficiency increasing problems in the same manner. Possibly through

these groups, they might have experience with outsiders trying to butt in and tell what to do. That indeed would give them experience in understanding management's attitude toward some of the insistent suggestions of non-specialists.

We have the curious anomaly that the worker the least able to understand the problems of managing is the one most vocal in demanding a share in management.

In speaking of this we do not disparage helpful suggestions and employee co-operation based on a well-balanced sincere desire to help in the progress of a company. We differentiate such a desirable cooperation of employees from cases in which, individually or through an organization, they seek to force their views on management.

Isolation of City Workers

A SECOND effect of modern urban life on labor relations may well result from the greater isolation and loneliness of workers in the large city. In the smaller community, a man and his family form part of a closely inter-related and matted felt of informal and formal social groups. This, while it has static aspects, that do not appeal to some younger persons, gives a stability of behavior that is not found in the larger cities.

The statements of propagandists in the smaller community are talked over, for evaluation purposes, with numerous people, both men and women, some of whom are fellow employees and others just fellow-townsmen. On the other hand, in the larger cities, the worker and his small family are much more isolated individuals. Apart from his contacts with a few fellow workers, a man to a large extent is compelled to form his own individual judgment upon matters placed before him for consideration. This situation is relative, of course, but it does suggest another reason why stability of labor relations may be more difficult to achieve in cities than in towns.

Desire to Change The Whole World

A THIRD consequence of city conditions might possibly be defined as the tendency of the city man, whether he be worker, professional man, small retailer, or what not, to join associations, with some grand, but rather vaguely defined purpose, designed to reform the world. By contrast, the small town resident is possibly more likely to associate himself with something more directly concerned with his immediate community interests.

Here, then, is another reason why the city worker may tend to join national or international labor unions, whose aims and objectives—if he really looked into them—might turn out to be of no importance whatever to him as an individual. On the other hand, in the smaller community, the group formed, whether affiliated with a national union or organized as an independent group, is more likely to limit its activities to matters directly affecting its local members.

The city man, however, may prove more fickle in his loyalty to groups to which he belongs. The rival demands on his attention of many interests perhaps account for this. And as the treasurer of any society well knows, it is very difficult to collect dues. We are witnessing exactly this phenomenon in some of the newly organized industrial unions. In so far as this tendency is characteristic of city dwellers, it seems to indicate that many of these unions will not grow into more than loosely organized groups. Is the union demand for the check-off and the closed shop a manifestation of this difficulty?

Wage Demands Generated

ANOTHER effect of city conditions is doubtless an increase in wage demands that may be due not to cost of living only, but to the necessity for engaging in commercial recreation. Demands for shorter working hours and a longer weekend may stem from desire to escape from the city, fully as much as from the factory.

Finally, tensions and frictions directly attributable to the sense of isolation and futility in city life may lead to quarrels among workers and foremen, to a thin-skinned sensitivity to slight and imagined insult, and to a lack of cooperative spirit among supervisory officials. Domestic difficulties, of the type leading to high divorce rates in cities, may well be among the important causes today of these deleterious tensions and frictions.

What Can Industry Do

WHAT can industry do about all this, even if it does learn from research specifically how these matters affect labor relations?

(1) One answer, of course, is to move into the country. During the past 10 or 15 years, there has been an increasing tendency for plants to be built in the smaller satellite communities that surround large cities. This has been done because of lower taxes, and lower costs, but it may well be suggested that the time has come when companies might look to social as well as economic factors in locating their plants, and in distributing their work. That is to say, when other factors of production, transportation, etc., are equal, new plants should be located in smaller communities, perhaps in those ranging from 50,000 to 150,000 inhabitants.

(2) In connection with this process of migration, care should be taken in drawing up labor policies and agreements, to allow for differences in character of city and town employees. Otherwise it is possible that artificial city tensions and rigidities may be introduced into the relations in smaller communities. For instance, an agreement drawn up and signed in Detroit, largely influenced by conditions there, contains provisions and introduces relationships that should be avoided in a community of 100,000 persons.

Detroit Edison Program

WHERE plants are located in cities, employees should be encouraged in forming social groups of their own. (3) In carrying this out, care should be taken to avoid any stigma that might attach to paternalistic welfare activities. If properly planned, the stimulation of these social activities is certainly evidence of a recognition by industry that man does not live by bread alone. An example of well-planned employee social groups is had in the Detroit Edison Company, an organization notable for its good employee relations. The groups include a boat club, bridge club, business club, camera club, chess and checker club, concert orchestra, athletic association, dramatic club, American Legion post, girls club, electrical club, glee club, linkage club, philatelic society, rifle and revolver club, safety committee, tennis club, and others.

(4) This whole matter involves, of course, the question of relationship of groups of company employees to other social groups in the community. This angle, of course, would require some investigation and working out.

(5) As part of its public relations policy it may be desirable for a company to foster the idea of a worker attaining a status, in the community and among his neighbors, because he works for the company. This would give him a natural feeling of belonging to something desirable, and would offset his feeling of isolated uselessness.

Bad Housing Accentuates Auto Industry's Difficulties

COMPANIES might realize to a greater extent the wide effects of their policies, and perhaps do more in the way of exercising remote influence. (6) A case in illustration is the situation in Detroit. One of the most disturbing elements in the private lives of workers there is the shortage of houses. It is said that at times workers must pay as much as 55 per cent of their wages in rent. Quarters available even then are often unsatisfactory. For instance, a skilled mechanic used to a single family house for his wife and children, finds himself in Detroit compelled to live in cramped quarters, possibly down to the point of taking a lodger. Such a condition does not make for satisfied or efficient workers, and breeds a demand for high wages not related to value of output.

It is said that the reason for the housing shortage is the fluctuating nature of the automobile business, leading to uncertainties about real estate values, and accompanying reluctance of investors to put money into new houses. Steps in advance, however, are the lengthening of production period by the automobile industry, and the recently announced policy of General Motors of advancing funds to workers during layoff periods. These two policies and perhaps others that might be introduced, after study, will unquestionably affect the housing situation in Detroit. This should relieve tensions and lessen demands for pay increases not

related to value of work performed and generally lead to improved labor relations in the automobile industry.

Industry Can Aid in Social Problems

WE CITE these facts as examples of the remote and encircling effect of company policies, and their effect on the life of the community and of employees. It is probable that much can be done by industry along these lines to aid in solution of social problems in cities.

(7) If capitalism is to continue, companies must learn to put their roots down in the communities in which their plants are located, so that they become really and truly integrated with the life of the country, instead of something distinct, at which it is fun for reformers to take pot shots.

How Can We Overcome The Handicap of Absentee Ownership?

IT WOULD seem particularly important for industries to get their roots down in the medium sized and satellite cities. It is likely that much of the industrial expansion of the future will be in these cities, since the very large communities may be approaching a population saturation point.

While these medium sized cities, as we have seen, present a situation in which tensions are less, and social living is more healthy and satisfactory, there is a potential menace in the fact that in the last decade or two, plants in this type of city, have come under the control of persons living some distance from them.

Traditionally, in the small community plants were owned and managed by residents. Today this is less so, there being what is called absentee management, a condition that is likely to increase.

There is evidence today that under this absentee control condition, insufficient attention is being given to the urgency of seeing that the plant has its roots in the community, and that it develops labor relationships that will bring the community to regard it as part of itself.

A recent survey, by the New England Council, of the relations of factories to community life shows very strikingly how this aspect has been neglected, and neglected very largely by resident managers who are not owners.

If the New England condition of affairs is typical of the country as a whole, it is not difficult to see how certain types of politicians have been listened to in their diatribes against industry and business; and how employees and citizens who should have been in close touch with, and who should have had a greater knowledge of industry's motives, have been left by industry to guess.

Preservation of Free Enterprise Involved

A PLANT stuck down in a community, which hires and fires, pays a fluctuating amount of wages, and has a managing personnel which follows policies not arising out of or related to the life of the workers and the community, may arouse

local antagonism. This antagonism is increased if the managing personnel adopts a patronizing attitude toward the locality, and looks to larger centers for friends and social contacts. Certainly local residents of the locality and employees will have little motivation for protecting such a plant, and its managers, against attacks.

Such a situation contrasts with that in which, either owing to a well developed system of absentee management, or to intelligent resident owner management, the plant has become the pride of the workers and community, which regards it as part of their life, and will defend it and preserve it.

The environmental problems outlined above are a vital part of the broad aspect of labor relations. Upon our success in meeting these problems in the next 25 years, may depend the extent to which people will refrain from thinking in terms of socialism or communism.

More and More Companies are Finding it Desirable to Consult Their Employees about Proposed Policies, Practices and Programs. There is Described Here the Excellent Experience of a Company which Applied this Consultative Method to Safety.

The Westinghouse Safety Inventory

By T. O. ARMSTRONG, AND H. B. DUFFUS

Westinghouse Elec. & Mfg. Company,
Springfield, Mass.

EVERY well conducted business requires that time be taken each year to "take stock" or inventory raw materials, work-in-progress, and completed apparatus. Payrolls and accounts are audited periodically. Individual examination or "stock taking" is being recommended more and more by health authorities. Why not inventory periodically your accident prevention work?

Do you want to know to what extent your employees are interested in your safety program?

Would they, if they had the opportunity to voice their opinion, take part in your safety program?

Are you willing to let them have a part in the safety program?

Are they tired of the very word safety?

Is your program (posters, meetings, etc.) just another one of those things?

Will your safety program stand such inquiry?

When you are doing all that you can, holding meetings, assemblies, keeping your posters up-to-date, running campaigns, having movies, and so on, what else can you do?

Employees Determine Safety Policies

WESTINGHOUSE at its East Springfield Works has found the answer to these and many more such questions. Their safety program has withstood the inquiry of the employees because the employees take an active part in setting the policy for the year's program in safety work.

Safety inventories were started at East Springfield in the year 1937, with what

was known as the "Clean Sweep for Safety" campaign. Since that time safety inventories have become standard practice, and are the bases for planning the year's safety activity.

Immediately upon "return to work" after the plant's regular inventory, "Safety Inventory Cards" are distributed to each employe from sweeper to manager, hourly paid and salaried worker, requesting each individual to "take stock" of his or her own situation with respect to safety.

In general the 1938 inventory questions were designed to check the knowledge of the employe as to the equipment that was surrounding him, and that he used every day to make his workday a safe one, while in the 1939 inventory questions were designed to create interest and develop a consciousness in the employe of the health side of our program, and the effect of lost time due to personal reasons beyond our control.

HEALTH & SAFETY INVENTORY		NAME	
Please make the following comments on your safety knowledge:			
Date	Grade	Occupation	
1. Do you operate a machine?		Is it properly guarded?	
2. What personal safety equipment do you use on your job?		Recommendations	
3. What additional personal safety equipment do you require?			
4. Do you wear safety shoes at work?		If not, why?	
5. Have you completed a course in First Aid?		If not, when?	
6. Would you be interested in attending First Aid classes (free work)?		With whom?	
7. Would you be interested in attending classes in home, highway, and industrial safety this winter?			
8. Did you use seat belts this summer?		Please comment on them.	
9. How many home injuries occurred because of accidents?		Home accidents?	
Automobile accidents?		Other accidents (specify):	
10. Were you ever examined by a doctor?		Did you ever have a physical examination?	
11. Have you any additional recommendations for the advancement of safety and health among our employes?			
SIGNATURE		NAME	DATE
USE OTHER SIDE FOR ADDITIONAL COMMENTS			

Each year through this medium we are able to measure the employes' attitude toward our program, and best plan the year's program having his approval and cooperation. It is also interesting to note that no matter how good a safety program is or has been, there is always room for improvement. This is verified in the fact that each year many suggestions are received for improvement.

Employee Attitudes Checked

Two thousand and twenty-five cards were distributed upon return to work.

1544 distributed to hourly paid employes in the shop.

1544 were returned and completely filled out.

400 distributed among salaried and office workers.

360 were returned completely filled out.

This latter group was particularly important. Members of the safety committee asked the question, "Why not distribute the cards to office and salaried work-

little we know about those things around us which are commonplace, but which are so necessary when needed.

Where is the nearest fire alarm box? Where is the nearest stretcher?

The intent of these questions is to draw the attention of each employee to the location of each. We recommend these questions periodically to keep everyone posted as to the whereabouts of such equipment, as the Steamship Captain requires Fire Drill periodically to keep his crew and passengers alert in the event of an emergency.

What personal safety equipment do you use?

Too often equipment such as aprons, gloves, tweezers, etc., is issued out of stock without any thought on the part of the employee that they are issued to him and purchased for him by the company for his health and safety.

This question was designed to call attention of the employee to the extent in which we are interested in his welfare on the job.

The tabulation brought out the following facts about materials purchased for the protection of the employees:

100 Aprons	Fireproof duck for welders and solderers, rubber aprons for acid dippers and platers and any operations where there is dampness or wet processing
63 Pairs gauntlets	For welders and platers
587 Pairs gloves	Cotton or leather, palms for material handlers, laborers, hand winders and women operators in certain operations. Leather gloves for welders and rubber gloves for platers and acid dippers
391 Pairs goggles	All types for all operations where there is possibility of eye hazard—machine operators, grinders, welders, certain foundry operations, etc.
46 Pairs leggings	For certain foundry and plating operators
26 Respirators	For foundry shakeout crews, spray painters, and certain dust producing operators
66 Pairs tweezers	For punch press operators
31 Welding masks	For acetylene and atomic hydrogen welders

Do you use protex (hand cream) to protect your hands and arms?

Protex is furnished by the company on all occupations where the employee comes in contact with cutting compounds. It is a preventative against skin dermatitis. It is expensive, consequently it is used only where exposure is likely.

How extensively is it used and by whom?

254 employees stated that they were using it all the time, on such occupations as hand and automatic screw machines, certain lathe operations, wash tanks, painters, platers, acid dippers, etc.

What additional personal equipment should be furnished to safeguard you on your job?

111 suggestions were received as to additional personal safety equipment desired. Maintenance workers wanted more fuze pullers; others wanted more goggles,

gloves, safety feet for ladders, a hoist, fire extinguisher, a blower; and one suggestion to build a truck the same height as the presses for easier handling of dies into the press.

Do you wear safety shoes? If not, why not? Yes 215. No 763.

Answers to this question were varied, and indicated in many cases that a selling job was still to be done in this field. Many of the employes had had sad experiences sometime ago with safety shoes and as a result were reluctant to try again.

Others stated that safety shoes weren't needed on their jobs.

The intent of the following question was to point out to women that the wearing of high heels was hazardous. In answer to the question:

Do you wear low or Cuban heels at work? 383 women asked. 198 said yes. 14 said no.

Likewise the following question was asked to point out that on certain occupations the wearing of finger rings, arm bracelets, and long sleeves was hazardous.

When working, do you wear finger rings, arm bracelets, long sleeves?

Such practice on operations of rotating machinery is particularly hazardous; drill presses, lathes, etc., where work rotates and there is the possibility of the ring or sleeve getting caught in the rotating work, resulting in some of the most serious accidents recorded by many firms.

Does your work make you nervous or over fatigued? 75 said yes. 7 said sometimes.

In our experience we have found that many of our accidents are due to nervousness or over fatigue. New help anxious to make good on the job; older employes transferred from one job to another and oftentimes a heavier or a faster one; the physical condition of the man himself; man placed on the wrong job—all are factors which should find the attention of a real, live, Safety Committee.

Are there any physical ill effects from your work? 84 said yes. 1538 said no.

All of the eighty-four gave reasons for their complaints—fumes, vapors, drafts, etc. and were investigated and corrected, even to the extent of calling in a chemist to analyze the jobs where complaints stated "fumes and vapors."

Does your job require you to stand? Sit? Walk around?

This question of course ties in with the one asked about fatigue and may have been the cause in many cases. All cases were investigated by the Safety Committee, as a part of the safety program for the year. A new design chair for women workers was the result of one investigation.

Do you know the company safety rules? 1409 said yes. 74 said no.

Needless to say the seventy-four No's soon found out. Each was called upon by a member of the Safety Committee and the rules explained, and a copy left with him.

Gratifying to the committee were the answers received to the question:

Do you believe that the safety rules should be enforced? 1950 said yes. 74 said no.

This would indicate that the average employe is still rather sensible about the welfare of himself and others around him. He will stand for no tomfoolery about

safety, and he doesn't hesitate to state so when given the opportunity to express himself.

Are the company safety rules for your benefit? The Company's? Or both? Yours, 150%.
The Company's. Both. 180.

This tabulation indicates that most employees felt that the company safety rules benefitted both the company and the employee and stated so in both places on the card.

What can be done to improve your working conditions with regard to your health and safety?

Here was an opportunity for all to suggest improvements if they so desired. Three hundred and eighty-one suggestions were received; suggestions for the elimination of drafts, better lighting, ventilation, new safety devices, etc.

The Safety Committee was anxious to get an expression of the feelings of the employees about First Aid Courses and whether they would take part in such courses if they were offered.

Have you ever completed a first aid course?

Two hundred and forty-three employees stated that they had completed a First Aid Course at some time or other. The major group of these who had completed such a course stated that they had gained such knowledge in the Boy Scouts of America; the next largest group was to the Army; others stated former employers, schools, colleges, Red Cross, etc.

Would you be interested in attending classes in first aid? 660 said yes.

Classes were formed immediately, but due to limitations of instructors it was necessary to limit the number of enrollments to one hundred and forty-five, who meet each week for a period of ten weeks, one hundred of them finally receiving diplomas at the annual meeting of the local Red Cross Chapter.

We are continuing these First Aid Classes again next year, believing it a good policy to have on hand and available throughout the works men and women capable and trained to do a good First Aid job when and if the emergency arises. The classes this year will be built up to cover a wider field. Standard First Aid Classes will be arranged for those who have had no First Aid training. Advanced First Aid Classes are scheduled for those who completed the standard course last year. In addition to this, arrangements have been made for some of those best qualified to attend an instructors' course so that we will have developed before this year is over a group of our own First Aid instructors, in this way making it possible for us to carry on from year to year a series of courses in First Aid instruction.

The following question also indicated an interest in all phases of Safety among the employees. In answer to the question:

Would you be interested in attending classes in home, highway, and industrial safety? 487 said yes.

In the 1939 Health and Safety Inventory many of the questions, as above, were

THE WESTINGHOUSE SAFETY INVENTORY

duplicated for comparison and to check the work of the Safety Committee. Most interesting in the comparison was the question with reference to the wearing of Safety Shoes, indicating definitely that the Committee had been on the job.

Do you wear safety shoes? In 1938, 215 said yes; in 1939, 335 said yes. Increase 12%.

During the past summer Salt Tablets have been distributed quite extensively throughout the Works and the Safety Committee were interested in knowing the employee's reaction to them. In answer to the question:

Did you use salt tablets this summer? 750 said that they had.

Others commented on them, stating that they had not used them because they did not perspire very much and therefore didn't need them. Some said they had tried them, but had become nauseated, or that they had made them sick.

In an endeavor to interest the employee in the amount of lost time, losses in pay, and the amount of sickness due to the common cold and other personal ailments, other than industrial, the following question was asked:

How much time did you lose this year because of sickness? Home accidents? Automobile accidents? And others?

The following tabulation as the result of these questions is interesting:

CONDITION	NUMBER OF CASES	DAYS LOST
Common colds	152	372
Severe colds, including bronchitis, tonsillitis, grippe, intestinal grippe, pharyngitis and other irritations of the mucous membranes due to cold infection. . .	77	706
Infections, including leg, ear, foot, jaw, sinus, eye, rectal abscess, boils, poison ivy, etc.	16	152
Personal (miscellaneous personal conditions)	22	55
Operations: Tonsillectomies, appendectomies, sinus, goiter, eye, fistula, etc. . .	16	438
Serious illnesses: diseases of the pulmonary track, cardiovascular system, nervous system, and renal organs.	23	934
Totals as the result of sickness.	314	2,757
Home accidents	19	222
Automobile accidents.	9	74
Recreational accidents—softball and skiing. . .	3	35
Totals as a result of outside accidents.	31	331

The full significance and the necessity for some action being taken to reduce the above causes of time lost can be visualized when compared with the following figures on cases and time lost because of industrial injuries within the plant:

Totals as a result of plant accidents	5	141
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What is the feeling of the employee toward periodic medical examinations? Do they want them? Would they avail themselves of the opportunity if they had the chance? To determine the answer to these questions, the following was asked:

When were you last examined by a doctor?

A study of the following tabulation is interesting. The majority of the ex-

aminations for 1939, 1938 and 1937 were those covering physical examinations by our doctor during re-employment.

Year of examination	Number examined
1939	813
1938	611
1937	246
1936	101
1935	36
1934	68
1933	33
1932	18
1931	2
Prior to 1931	87

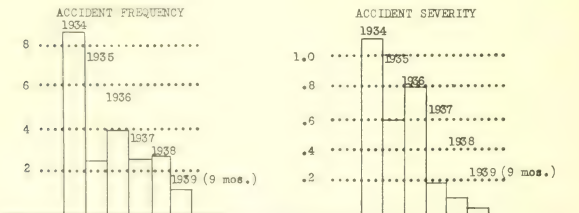
Do you want a physical examination?

372 said yes. A few stated that they now had periodic examinations by their family physician.

As a basis for planning your next year's programs the Safety Inventory is very worth while.

As a measure of the job done over the past year the Safety Inventory is excellent.

In the past we thought we were doing a good job; our records proved that we were, yet we found after our first inventory that there is always room for improvement.



We are gratified to know that in the main the employees not only were enthusiastic about presenting their point of view, but they believed in our safety program, they wanted it continued, and wanted it enforced.

The Decision on the Part of Management to Codify Existing Material Came Because the Local Union President Requested a Manual to Help the Men. He also Requested that Examinations for Transfer and Promotion be Considered.

How *to* Prepare *a* Job Manual

By RALPH D. WILLIAMS,

Hudson Valley Fuel Corporation,
Troy, N. Y.

FROM time to time the notion arises that anybody who can close a valve and record a gauge reading can be a shift operator in some of the departments of a gas plant. That this is a dangerous fallacy has been demonstrated many times in sudden, costly emergencies that were not handled promptly and correctly. Such emergencies always call for reexamination of safety rules to see if the condition could have been foreseen and raise the question as to whether the training of the men involved was adequate to prepare them for their jobs.

Not Every Man Can Do The Job

CAREFUL investigation of a number of cases from the safety and training points of view has led to the conclusion that most of the cases were just ordinary operating situations which got out of hand not because the operator did not have the opportunity to know the proper practice but because he did not understand it. This may appear to be one of those facts which is self-evident but it has been surprising how many people, aside from the foremen and most of the operators who have direct responsibility for these process operations, still hold the opinion that almost any man given time and experience and a relatively small amount of training can become an operator.

What are the qualities that make a good shift operator in a plant? Why is it impossible for some highly skilled laborers to qualify for such jobs? Why are excellent mechanics often sadly out of their element when attempting to regulate a series of processes? Why do men who have done satisfactory work with material handling equipment, conveyors, crushers, etc., fail to perform satisfactorily when

handling gases and liquids in pipes and tanks? Certainly some of the many leading questions which occur and recur give some clue to the answers.

This is one of the problems which is part and parcel of operation of a plant. This paper outlines the effort made at one plant to solve this particular problem and sketches the history of the investigations.

Tests Might Be Used

THE idea of developing tests for specific abilities is not new. Examination material is in use for determining various abilities such as mechanical, technical, clerical, etc., and many aptitudes related to manufacturing and business. Progressive examinations, written or oral, have long been used for demonstrating craftsmanship in selection and promotion of civil service and railroad employees. Over a period of time it became apparent that similar formal procedures could probably be developed for selecting shift men on operating processes as well as other workers in a modern gas plant.

The plant referred to in this paper is comprised mainly of two batteries of coke ovens, four 12-foot gas sets, and two gas producers; also the necessary by-product recovery plants, railroad facilities, and a butane vaporizing plant. The base gas load is produced in the coke ovens, the other facilities being used for underfiring the ovens and peak load requirements. The work done in such a plant falls into rather definite categories.

Plant Work

- A. Operation of Solid Material Handling Equipment
 - a. Coke Oven Machinery
 - b. Coal and Coke Preparation Equipment
 - c. Locomotive Crane and Railroad Switching
- B. Operation of Technical Processes
 - a. Coke Oven Heating (under-firing)
 - b. Water Gas and Producer Operation
 - c. Steam Raising (Stationary Boiler Operation)
 - d. Recovery and Refining of By-Products (Benzol, Tar, Sulphur, Ammonia, etc.)
 - e. Electric Supply
- C. Repair and Maintenance
 - a. Electricians and Instrument Men
 - b. Millwrights, Machinists, Pipe Fitters
 - c. Welders, Blacksmiths
 - d. Oven Patchers and Brick Masons
- D. Manual Labor
 - a. Yard Labor, Trackmen, Clean-up Men
 - b. Water Gas Fire Crew
 - c. Car Unloaders, etc.
- E. All Other
 - a. Supervisors, Foremen, Engineers, Chemists
 - b. Clerks, Accountants, Storekeepers

Such a classification gave clear indication that there really was a gap in our knowledge of the men in Group B with the apparent exception of boiler operating men. It was surprising to realize that with so much knowledge of the technology available the more fundamental knowledge of what personal abilities and aptitudes make satisfactory operators had not received the attention it deserved.

The departments which were chosen for study involved 62 men as follows: 15 heating (coke ovens), 10 boiler plant, 16 by-product recovery plant (tar, ammonium sulphate, and sulphur), 5 benzol recovery plant, 8 water gas plant, and 8 producer gas plant. It was believed that if these jobs were studied and analyses were made comparing the jobs, sufficient groundwork of data could be acquired to determine what the various jobs had in common, and wherein they were different. These studies were made by an outside organization. The studies underlying two of the jobs are described later therein, namely, water gas maker and his helper.

Job Duties Checked With Workers

FOUR men are regularly employed in each of the jobs described, and it is customary to have one or more men trained and ready to fill any job on short notice. Each operator described his duties and the duties of his helper to the job study man while on active shift duty. The job study man stayed through at least two shifts with each operator and his helper or until he was fully familiar with the duties, related working conditions and type of men who were doing the work.

By learning the jobs and related conditions in this way it was unnecessary for the job study man to be a selfconscious observer or to take notes. The job study man thus learned the job and wrote it up afterwards. The list of job duties so acquired was typed, and after being reviewed by the supervisor in charge of the department, was then again reviewed by each operator in turn. An office was provided where the job study man and the operator could sit down and review the lists of duties. One typed list was made of the job duties for operators and another such list for their helpers.

Union Requests The Study

IN THE background leading up to the decision to make these job studies was a plan to develop a manual of safety rules and operating information for each of the jobs in the plant above yard laborer. The decision on the part of the management to codify existing material came at the request of the local union whose president stated his belief that such a manual would be very helpful to the men. He also requested that the matter of formal examinations for transfer and promotion be considered.

This subject was studied extensively by the joint committee of men and management, a tentative plan was formulated, and the development of the manual begun. This committee followed the work from the start and did an excellent job in formu-

lating details of procedure for giving the examinations. Union officials and this committee did a fine teaching job in helping individual employees to understand the merits of the new method. The program would not have been successful without the enthusiastic support of the management, whose cooperation, from the outset, lent impetus to the prosecution of the studies.

The safety rules were revised and reprinted on loose leaf sheets. Foremen and operators cooperated in accumulating the most important operating information for the technical process departments. The revision of safety rules and editing of operating information was done by the plant safety engineer whose experience as an operating foreman dated back to the construction of the plant. The operating information was transformed to question and answer form and both questions and answers also printed on loose leaf pages.

Manual of Job Duties Prepared

AS THE work progressed it became apparent that the Manual was adequate for training of men in the departments in necessary knowledge, but did not furnish a satisfactory means of examining men for transfer into these departments.

As the job studies were completed, it became apparent that the duties outlined in the analysis of each job were excellent checks on the completeness of both safety rules and operating information. It was therefore decided to include lists of job duties in the manual.

Sufficient job data had been collected to prepare a qualifying examination to determine whether men had the ability to become process operators. Selection of helpers able to learn operating and make progress so as to qualify as future operators is a fundamental necessity. While the examination paper itself is kept confidential for obvious reasons it is designed to indicate abilities such as reading instructions, noting operating changes, writing reports, and making log sheet entries, arithmetic facility, practical judgment, following directions, general knowledge of the plant, interest in different kinds of work, knowledge of tools, etc.

Examinations for Promotion and Transfer

IT is a practical type of examination weighted with plant atmosphere and common sense. It is the kind of examination with no time factor and does not depend on type of schooling. It was criticized by many operators before it was finally printed. This examination promised to make much simpler the selection of men for transfer to the foregoing departments.

In addition to the foregoing examination men holding helper and lower ranking jobs in a department who wished to qualify as operators can be examined on the manual by means of written or oral examination. (The job analysis had, therefore, furnished a sound base for a program for the selection and training of plant operators.)

In brief outline, the steps toward selecting competent men to fill vacancies in these operating jobs are as follows: First, compiling a list of men who, by formal bidding or verbal request, had applied for vacancies, present or future. Second, giving the qualifying examination. This must be passed with a certain percentage mark. Other factors always considered are physical condition, attendance record, safety record, performance record, length of service, etc. The final decision on the man selected is made by the management and reviewed with the joint committee.

The procedure is similar whether a transfer into a department or promotion within a department is under consideration. The final examination only is varied; with transfer into a department the man takes the qualifying examination described above, for promotion in a department the examination material is taken from the Manual.

Consulting Agency Aided

IT SHOULD be recognized that this material might serve as a pattern or guide for another gas company, but another gas company would need to develop its own specific material. Each group of employees and each plant layout, while similar in many respects, is so individual in character that serious difficulties would be encountered if a perfunctory adaptation of the material were attempted.

Our experience indicated the wisdom of having job analyses made by competent outsiders working with the regular operators. Without the time and help given by the twenty-four regular operators in the six departments this work could not have been done in its present form.

The benefits derived from the foregoing may be summarized in order of relative importance somewhat as follows: 1. inspiring confidence, 2. stimulating interest, 3. providing job and safety information, 4. supplying examination material, 5. providing a test of the accuracy of the employee manual, 6. producing a better understanding of the coordinated operation of the whole plant, 7. enhancing the appreciation of the importance of the individual in his job, 8. describing the qualifications of the man necessary for the job, 9. exchanging ideas relative to the job, 10. broadening the education of the supervisors, 11. recording departmental vocabulary and vernacular, and 12. furnishing a sound base for a program for the selection and training of plant operators.

The following abridged job analysis for water gas makers and helpers is typical for the six departments studied. This example is presented with this paper because it is believed to have wider interest in the industry than any of the others.

Summary of Analysis of Water Gas Maker's Job

1. GENERAL DESCRIPTION

Based on Activities and Products Made

General Description of Duties: Produces blue gas. Supply coke or coal to generators and pass air and steam through coke to make water gas to heat coke ovens where oven gas and coke are produced and also to mix with oven gas for city use.

Production of Coke. Supplies coke or anthracite coal to water gas generator; admits steam and air to make gas and pumps gas to heat Foundation ovens for making coke.

Production of City Gas. Pumps gas to holder to mix with oven gas in order to produce required quality and quantity of gas for consumers.

SUMMARY OF DUTIES

Examples

Charge Generator. Turn screw lock and open lid of generator—push lid away (on rails)—pull on larry car by hand to roll over hole, pull gear check loose with fingers, move larry back and forth over hole by hand crank (handle on wheel) and turn wheel, on side, to close bottom. Roll larry away and roll lid (above) over hole. Screw lid on tight by hand.

Start Automatic Operation. Pull lever out on control board to start air blast. Look through peep sight until color of fire shows cherry red. Push levers on control board to admit steam after set has been shut down for any time. Push small handle on side to "split-run" position after first "up-run."

Charge Relief Unit. Look at fire in relief generator and charge as necessary.

Inspect Seal Pot. Turn valves on seal pot at rear of boilers, wait for liquor to drain, insert short rod to determine sludge level, close valve.

Inform Foreman. Report unusual conditions to foreman.

Record Operation. Record major operations in log book to provide written record.

Inspect Water Level. Look at level of water in water column on boiler.

Supervise Fire Cleaning. Look over generator carefully after cleaning by fire crew and pass or reject job depending upon amount of clinker left.

PHYSICAL CHARACTERISTICS OR FACTORS OF OPERATOR

Examples

Physical Alertness. Walk to various positions on one level (operating floor) and maintain constant alertness during entire shift.

Physical Strength. Handle larry car, move lid and assist fire crew. Handle simple levers and valves, some strength required.

Physical Endurance. Work entire shift of operations listed. Some (infrequent) climbing of stairs or ladders required, work in standing or walking position with some rest periods.

Physical Health. Freedom from:

1. Impairment of vision or hearing
2. Impairment of legs
3. Heart disease

HOW TO PREPARE A JOB MANUAL

EXPERIENCE

Examples

Minimum Experience. Helper—one year. Prior to Employment in Plant: General experience as steam engineer or fireman on railroad, in power plant and similar jobs.

(Minimum) Learning Period to Perform Duties Without Direct Supervision on Job. Working with experienced Water Gas Maker.

Relation to Other Jobs. Promotion to general foreman. Rotation to producer gas operator, heater. Promotion from turbine operator.

ABILITIES

Examples

Eyesight. Read $\frac{1}{2}$ " numbers on gauges at 3'. Read approximate position of 12" hand on 14" face at 75'. Read 15" clock at 50'. Distinguish between light blue, cherry red and purple.

Touch. Discriminate by touch and feel for change of 50° Fahrenheit on metal casing.

Accurate Movements. Use wrench to connect pipe.

Figuring (Arithmetic). Differentiate numbers 1-100. Weight relation—pounds and tons. Read multiple record chart in temperature and pressure units. Add, subtract 4 digits.

Oral Memory. Repeat meaning six simple sentences after one hour span (context).

Visual Memory. Read six gauges and repeat reading without error after 5 minutes.

Observation. Notice brick (6" x 2") 2 inches out of line at 10 ft. distance.

Multiple Operation. Watch gauge and turn valve simultaneously. React to auditory signal (bell) while working on job. Watch movements of levers at distance of 50 ft. and position of indicator on gauge.

Hearing. Distinguish difference in pitch of turbine. Notice when usual starting noise of turbine fails to occur every 3 minutes.

Understanding Instructions. (1) Oral—Give and understand simple verbal orders. (2) Write and read simple description as contained in log book and manual of instructions.

WORK SITUATION

Examples

Place. Inside water gas building on second floor.

Materials. Coke and coal stored in bins and supplied to generators by manually controlled larry car. Handled almost entirely by helper.

Exposure to Weather. Entire shift spent on operating floor of water gas building with complete protection from weather.

Moisture. Water in small amounts on ground floor.

Temperature. Very hot in summer.

PERSONNEL JOURNAL

SAFETY PRECAUTIONS

Precautions with Regard to Hazards

I. Process. Possibility of explosion at start of operation due to having down run or back run instead of up run or failure to purge.

II. Personal. Gas or combustion burns: Possible injury from back draft while removing lid from generator if not careful. Falling objects: Possible injury from falling coke.

The Psychological Corporation of New York aided in the development of this work.

The Greatest Number and Variety of Recreation Facilities, per 1,000 Population are Found in Medium Sized Cities. Utilization of these Facilities is also Greater, and they have the Highest Ratio of Park Acreage to Population.

Workers *at Play*

Summary of Discussion,
At 24th National Recreation Congress.

THE part that industry can take in aiding in the provision of recreation for workers was recently discussed at the annual meeting of the National Recreation Association.

Two sessions were held, participants in the first being, M. M. Olander, Owens Illinois Glass Company, Toledo, O.; Frank P. Callahan, General Electric Company, Schenectady, N. Y.; Jack Reitz, R.R. Y.M.C.A., Boston, Mass.; James F. Walsh, Chrysler Corporation, Detroit, Mich.; and T. O. Armstrong, Westinghouse Elec. and Mfg. Co., Springfield, Mass.

Participants in the second session were: Guy L. Shipps, Dow Chemical Company, Midland, Mich.; E. S. Connor, Goodyear Tire and Rubber Company, Akron, O.; R. B. Tefferteller, Amalgamated Clothing Workers of America, Pittsburgh, Pa.; and T. O. Armstrong.

Philosophy of Recreation

IN THE first session under the direction of Mr. Olander we discussed the philosophy or the "Why" of recreation; that is, what is back of a recreation program for workers.

It was generally agreed that it must be and is good business to have an active interest in a recreational program for workers.

It was generally agreed that morale and business went hand in hand, and, that recreational programs did help in morale building. Several in the group offered evidence of increased efficiency on the part of workers as a result.

It was further developed that a company having recreational activities and facilities attracted better citizens to its place of business, that workers generally were proud of their company, and stated so publicly through the various recreational activities.

Paternalism Must Be Avoided

A FEW fundamentals were discussed in particular—one that top management must be such as to recognize its effect as a part of good business; that we must think in terms of the long range program, and not one spontaneously set up to meet some particular situation which presents itself. It must not be paternalistic. It must be a program that the employee wants.

The company or its representative must not be meddlesome in the recreation affairs. They should recognize it, help it, and probably would have to provide the spark to set it in motion, but the program in order to continue successfully must continue on its own momentum with the employees carrying it on because they get a "kick" out of it, and want it.

A recreational program, if well rounded out, does create a better fellowship among groups. It tends to enrich the life and personalities of the individual toward better citizenship, and a happier personnel.

To round out or broaden a program it must go beyond the physical, to the educational and the cultural. It is definitely a part of the human engineering program, as is personnel in all its phases. As the representative from Goodyear stated, "Our policy is to reach the entire personnel within the organization."

Almost unanimous were the group in the thought that a well rounded recreational program assisted in developing leadership within the organization. Many cited cases of new leadership found which had not been known before.

Give the employee an opportunity to express himself, help and assist by having a top management recognition of its worth, have a man within the organization to help to provide the spark, but be on the lookout for the expert who insists upon his ideas being carried out and becoming meddlesome, and defeating the purpose behind your program.

Should Recreation Be Left to Unions?

SOME thought that management had lost its interest in doing anything in the recreational field, that unions were taking over these matters, resulting definitely in a lack of interest on the part of the management.

Representatives of the General Electric Company at Lynn, Mass. and the Westinghouse Company at Springfield, Mass., both of which have large labor unions, brought out the fact that recreational programs conducted in their plants had gone on unchanged over the years, and that representatives of the Union had and were taking active part as members of the Recreational Associations along with

others on the Management side. Thinking on this matter was divided however, particularly due, to varied background, and experiences under certain conditions and in certain areas.

One of the conferees raised the question about the National Labor Relations Board decisions which have affected management's interest in recreational matters among the workers, citing a case where his company was forced to cease activity of a recreational nature.

Effect of Long Weekend

THE effect of the long weekend was touched upon—some questioned as to whether or not efficiency dropped off on Friday afternoon, (employees anxious to get away) and again on Monday morning, (employees slow in getting started); however, in contrast to these thoughts we had the statement of a man of more than twenty years experience who stated that, "The blue Monday has gone forever, efficiency is up, the workers better and more efficient as the result of more recreation." Probably there is such a thing as too much recreation, resulting in a desire to return to work, to get back on the job.

A definite need was expressed among the group for the broadening of college courses, training men for the jobs of recreation within industry, as is done with Physical training personnel in the Schools, YMCA, and other social agencies.

All of these thoughts laid the foundation for the second session directed by Mr. Shipp of the Dow Chemical Company. Here we discussed the "What" of the program, the activity, the technique, problems, etc.

How Programs Financed

HOW are programs financed? Methods are varied, one company reporting that activities were sponsored as a result of membership sales to the employees at so much per year, while another stated that his company allocated so much money, budgeting it for various activities, loans to the Association to be returned from membership dues, receipts from shows and activities, etc. Another advised that all receipts came from the sale of candy, cigarettes and other articles in vending machines distributed throughout the plant.

Who paid the recreational director? In most cases the Company. Some had no director, as such, but guided the activity through some member of the Personnel Department. One company advised that the Recreational Association had its own Director fully paid by the Association itself.

In discussion, many members of the group felt that the employees should pay a part of the expense incidental to the program, as such practice tended to keep up the interest in the activities. As one member of the group stated: "If you can get the employees to pay dues into an Association you've got something; they will be interested and will take part in its activities."

Much discussion was held on the subject of what was being done in the small plants within the small communities who have very little facilities, individually, for recreational programs. Mr. Johnson of the Boston AAU offered the suggestion of a closer coordination of those interested with the social agencies of the community, for an allround program for the benefit of the worker, the management, and the Community.

Cooperative Plans for Small Companies

THERE was some question as to the expense of the various social agencies and the impossibility of workers being able to pay the fees charged. However a few instances of collaboration were mentioned such as the Newark Recreational Association, and the Springfield (Mass.) Industrial Association which were doing a fine job of coordinating the activities of the small plants within the community in recreational and educational programs. Another experience came from Joliet, Illinois, in what is known as a "Training Institute Program" for Personnel Men who meet each week for discussion and to plan recreational programs of workers within the plants and within the community.

Miss Rogers, YWCA, suggested that their organization was inexpensive and should be called upon for leadership material in the field of women recreational problems quote; "Our job is to train girls for leadership in Industry, to graduate them into organization work among the industrial women within the community.

New York City Programs

A GREAT deal of discussion was held on the Union and the recreational program. Mr. Boyer of New York told about the recreational activities in the City of New York, stating that the Unions recognized the lack of recreational activities for certain age groups within the city, and among the settlement workers.

In the past three years unions have taken a definite interest in Recreation—more than two hundred unions have formed into what is known as the Trade Union Athletic Association or League. Members are composed of those from the A. F. of L. and the C. I. O. The programs are administered by the Unions.

Mr. Boyer felt that Management has taken advantage of the recreational activity in the past, and that the Unions have always been and will be interested in the education of its members. Their program is divided into two groupings: the Cultural and Educational, and the Recreational Program.

The work and program is financed from the dues that the members pay. A short while ago 370,000 members presented a problem in the City of New York because of the lack of facilities—ball diamonds, and the like—members complained that there was no place to play. After contact with the Park Department, facilities were provided, and a building known as the Labor Sports Center. Every

member has the opportunity to purchase a season ticket to use—the center is open for his use—four nights each week for any activity he cares to take part in.

Mr. Tefferteller, of the Department of Cultural Activities, Amalgamated Clothing Workers of America, Pittsburgh, Penna. stated, "We have got to improve this sore spot in Industry today—if we are to continue the 'American Way' in contrast with the confusion in rest of the world.

With leisure time we must give the employe a fuller life.

It is our job whether it be a community of five hundred people or a large city to see what we can do to help those less fortunate to get that fuller life."

All Must Get Together

FROM his experience in Pennsylvania townships he advised that there was a crying need for recreational activity directed properly, choral groups, bands, orchestra, hiking, ball, etc. But it takes capital—the Unions can't supply it—the communities are poor—and the industries find it hard to take part financially. However, something could be done if all got together to plan and work out a program at little cost to all.

Unions today are trying to find ways and means to enrich the lives of its members in a fuller life.

Discussion continued on the questions brought up by these gentlemen. Some in the group questioned the reason for New York City having Union controlled recreational activity, feeling that in recreation there should be no difference between Union Members, Engineers, Clerks, etc.

The conference finally shifted to the need for collaboration of all interested parties about recreational matters, such as this conference of the National Recreation Association presented.

What To Do

TRAIN workers in recreational work for industry.

Collaboration with Schools and colleges on training—use of available facilities, etc.

Build in the schools a philosophy of recreation.

Get together with members of your Park Commission, your School Board, your Recreational Men already in Industry, your Social Agencies, and your Union people if they have recreational men within their organization.

There is no reason why Labor, Management and those who have to do with and administer recreation within a municipality can't get together if they want to. The result is for the good of all.

It was recommended by this conference group that the National Recreation Association undertake a study through Committee of what and how this work is now being done in the various Communities.

It was also recommended by this group that the National Recreation Association consider the placement of this subject on next years program for two full days. Much was realized out of this meeting, but the surface was merely scratched.

Let us keep our eyes to the future—the worker of today is more educated than he was in yesteryear. Leisure time can be profitable to him if guided. He needs help and guidance.

The National Recreation Association

Some idea of the tremendous part which recreation plays in the lives of workers and their families may be gathered from the table below, which is taken from the Year book of the National Recreation Association.

MILWAUKEE, WISCONSIN, 1929		
RECREATION FACILITIES	NUMBER	CONTRIBUTION PER ANNUM
Artistic Gardens	38	193,333
Artistic Fountains	904	3,998,728
Baseball Diamonds	3,906	11,539,458
Bathing Beaches	564	173,446,706
Boating Harbors	204	139,682
Camping Sites	103	198,556
Camps—Others	105	260,327
Golf Courses (9-hole)	137	2,264,213
Golf Courses (18-hole)	218	5,817,487
Handball Courts	1,804	4,724,572
Horseshoe Courts	9,289	4,558,860
Ice Skating Areas	2,643	13,222,313
Picnic Areas	2,280	12,869,523
Shuffleboard Courts	1,881	2,219,244
Skiing	114	38,244
Skiing Lifts	8,833	20,280,89
Swimming	241	1,341,920
Swimming Pools (indoor)	364	3,374,333
Swimming Pools (outdoor)	848	26,249,891
Tennis Courts	11,317	68,798,311
Toboggan Slides	281	696,701
Wading Pools	1,510	
Total		298,937,279

Those interested in this matter are recommended to obtain a copy of this year book. (Price 50¢. Obtainable from the Association, 315 Fourth Avenue, New York, N. Y.) It gives an account of increases and decreases in types of recreation favored. It also gives information as to the recreation facilities in nearly nine hundred cities, together with the name of the person in each city who may be approached as a source of information.

The Association has a director of industrial recreation, Mr. E. C. Worman, who will be glad to give further information.

Book Reviews

PSYCHOLOGY FOR BUSINESS AND INDUSTRY

By Herbert Moore. New York: McGraw-Hill Book Company, 1939. Price \$4.00

Reviewed by Edward N. Hay

"Psychology for Business and Industry" was evidently written as a college text-book, and as such has merit in spite of certain weaknesses in handling the very wide range of difficult material. The author places the proper emphasis on the importance of having the right man in the right place. He begins with the statement of "Psychology's service to business and industry" and follows up with successive chapters on getting the job, proper selection, hiring, testing, promoting, training, and concluding with chapters on accidents, fatigue, and the psychological problems in advertising and selling.

A weakness of the book is that it attempts to cover a great deal of ground; probably more than any one individual is competent to do. The result gives the impression at times of an assembly of material culled from other sources, and this effect is heightened by the enormous number of references, many of which are quite old. The results must be confusing to the general reader or the student, especially as the author does not attempt in many cases to indicate what method has proven its value in industry through long use, and which one is essentially experimental. This lack of discrimination greatly reduces the value of the book.

The chapters relating to testing the applicant and constructing tests ought to be the best, but are very disappointing both in the material presented and in the lack of critical interpretation. Too much space is given to tests which are not used in industry, and to others which have long since been discarded, such as Katherine Blackford's method of "character analysis".

The book will have little value to anyone of much experience in industrial psychology, and will be an uncertain guide to those without that experience.

THE FUNCTIONS OF THE EXECUTIVE

By Chester I. Barnard. Cambridge, Mass.: Harvard University Press, 1939

Reviewed by Sidney Adams

An analysis of the work of the executive by a practical administrator versed in philosophy, psychology and sociology. The first chapters of the book are given over to stating viewpoint and defining terms. The writer believes that formal organization, (in which the executive functions) has been neglected in current writings; at the same time he recognizes that informal organization is found within, and is necessary to, formal groups to a considerable extent. Formal organization is necessary to provide a system of communication within the group.

Simplicity of organization makes for better and quicker intra-communication. The basis for authority is its acceptance by those controlled; it is not something

inherent in those who control. Failure to realize this is one cause of executive failure. Another cause is the inability to reconcile conflicting codes of conduct—not so much from moral weakness, as from lack of capacity. The characteristics of the good executive are described in these words:

“Following loyalty, responsibility, and capacity to be dominated by organization personality, come the more specific personal abilities. They are roughly divided into two classes: relatively general abilities, involving general alertness, comprehensiveness of interest, flexibility, faculty of adjustment, poise, courage etc.; and specialized abilities based on particular aptitudes and acquired techniques.”

Although the author's approach is somewhat abstract, the book is interesting and is well worth reading, because of the writer's fresh views on the subject.

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A Recent Study Showed that Output per Man-hour Increased 57% from 1919 to 1935 in 59 Manufacturing Industries. A Labor Representative's Views on this Subject are Given here. Later We Expect to Give the Views of a Management Representative.

Technology *and* Labor

By SOLOMON BARKIN

Textile Workers Union of America
New York, N. Y.

TECHNOLOGY is dynamic. Changes are constantly being made in its form, mechanics and procedures. Sometimes the materials of manufacture are changed. The conditions in the place of manufacture are often modified. New tools or machines are introduced, or old ones reconstructed. Methods of production or operation are frequently revised. Processes of production are reorganized, and entire stages eliminated. Products are oftentimes radically changed, or fall into discard, and new or old ones substituted for them. Whether it be the first, or the last of these changes, the repercussions on our society are widespread. They all raise the same fundamental social questions.

Economists Are Pessimistic

ECONOMISTS have studied the economic, social and industrial problems arising from this changing technology. They have been most vitally interested in the effect on the volume of employment of several, but not all, types of change.

They have also discussed methods of controlling the pace of technological change, and the means of mitigating the social effects of displacement. As depressions have grown longer and more intense, many economists have lost faith in the price system, as a means of securing an automatic balance of economic forces. They have come to consider the price system obsolete for our highly articulated economic structure. More and more they have concerned themselves with the possibilities of national industrial planning, as a technique for realizing the desired economic equilibrium.

Labor organizations and progressive management have also dealt with some of the problems of the machine age. They have tried out many schemes to ease the blow of displacement, and have capitalized the increased industrial productivity in order to advance wages so that hourly earnings are now at the highest point in the history of the nation.

Labor, management and government have cooperated in reducing weekly hours of work. The entire social security program is designed to care for workers who are subject to the risks inherent in the machine age. The individual is helpless to care for himself because of his dependence upon the highly successful functioning of our complex and interdependent industrial and economic structure.

Much has been written about the effects of the new technology on our lives. Inventions have created many new pleasures, diversions and arts. The large metropolis have become dependent upon a refined technical system. These developments have brought new social problems. A new tempo of life has placed additional strains upon mental balance. Our educational system has sought to adapt itself slowly, to be sure, to the needs of a new day. The reactions to changing technology are legion. Some writers have been so appalled by the picture that, to secure release from this turmoil, they retreated to the imagined peace of medieval society.

Revising Job Assignments

YET many problems have not been reviewed with any degree of objectivity. An example is the human problem arising with the revision of job assignments within a plant. Elliott Dunlap Smith in "Technology and Labor" discusses the problems encountered by plant management in its attempt to revise work assignments.

They are discussed in terms of the experience of some eighteen cotton mills in the introduction of larger loom assignments for weavers, and other weave room employees. The three major questions raised by the book are: first, what is a proper job assignment; second, what is labor's attitude to such changes; and finally, and most carefully elaborated by the author, how can management successfully extend work assignments?

What is a Proper Job?

IN CONSIDERING the basic questions of the contents and meaning of a proper job assignment, the author admits an absence of adequate measurement or definition. Modern management has developed neither appropriate criteria nor sufficient guides. It has relied and still relies on the "artificial" results of time studies, supplemented by the "actual operating judgement and experience" of supervisory staff. Management has not formulated a clear understanding of the contents of a proper job. It is unacquainted with the short and long-run effects of different elements of work, or the amounts of work to be properly required of a worker under different conditions

of employment. The terms "rest," "fatigue relief," allowances or the like, and the full meaning of strain are not defined fully or described adequately. The author neglects to stress the absence of investigation or inquiry into these problems, or to emphasize the need for intensive study in all of these fields.

We may further add that the lack of adequate definitions, and an appropriate statement of the problem leave individual management and organized labor without a well-described common basis on which to resolve differences arising in connection with work assignment. As a result, management has tended to insist on its right to define assignments to the point of refusing impartial arbitration where differences exist. Labor, on the other hand, has had no objective gauge by which to measure properly its own rights. Organized labor in the textile industry has offered several rough criteria as tentative guides to management, which has increasingly accepted them, thereby minimizing strife on the issue.

Practicing industrial engineers have assumed the prerogative of defining job assignments, but they have been too little tutored in the "artificiality" of the time study, and have been ill acquainted with the resulting physiological, mental and psychological problems. They have been too "practical" to be troubled by these questions, or to develop scientific research data on which to base impartial judgments. They have almost always served management alone.

Basic Thinking by Industrial Unions

ONLY recently basic thinking was initiated on these questions. The new industrial unions, first in the textile industry, and then in the automobile and rubber industries challenged the rule-of-thumb practices and judgments of consulting engineers and practical operating executives. They demanded the right to review and revise job assignments if excessive.

Research in the field of industrial psychology has hitherto dealt primarily with conditions inhibiting, restricting or reducing production or causing losses to management or immediate injury to the worker. It is time that inquiries were directed toward the positive problems of evaluating the nature of a proper job and measuring it.

Labor's Ideas Misunderstood

LABOR's resistance to technological change is not founded, as the author would have us believe, on the fear of the "hardship of work" or that of "being stretched out". His proximity to the experiences of the cotton textile industry beclouded his awareness of the real causes, which he enumerates only partially in another connection. The opposition to all types of technological change originates with the fear of the loss of job, the loss of bargaining power, through the elimination of established skills or personal qualities and changes in job methods, as well as the threat of overstrain and reduced self-reliance, and the suspicion that management really is not concerned with the present or future welfare of its employees.

Organized labor has recognized that positive gains result from technological change. But neither the official labor movement nor the individual worker have any faith in the ability of industry to meet these problems, or any assurance of enjoying the benefits of technological advances. They know too well the grim future faced by the displaced worker.

During recent years labor organizations have given up outright opposition to technological change. They do not wish to share the responsibility of initiating change, except to keep individual plants competitive. However, they do insist on labor sharing in the benefits of these changes through higher wages, shorter hours, more rest allowances and better working conditions.

As labor becomes more strongly organized in modern industries it demands the right to participate in the determination of job assignments. Besides subjecting job assignments to collective bargaining, labor desires to mitigate the effects of technological improvements by presenting rules for controlling labor turnover in order to assure jobs to employees, by invoking seniority rules, assuring adequate preferential rehiring rights, by retraining and transfer programs and by providing severance allowances and old age pensions. These practices are now prevalent in sections of the textile industry.

Suggests National Program

WHILE the above program has made labor more receptive to proposals for technological change, the fear has continued. These measures can, at best, only be applied in moderate proportions on a plant or industry basis. Keen industrial competition, the weak financial condition of many firms, and the backwardness of many managements will not allow for its universal adoption.

An adequate national program developed by labor and management with the government, as the most available public agency with compulsory enforcement powers, would assure even greater cooperation on labor's part. This program would include retraining, transfer, personal rehabilitation, new job opportunities, financial support, as well as retirement. It would also define a system of law enabling workers to realize the benefits of the advancing technology through higher wages, lower prices and shorter hours. Such a system of law might well be based upon the extension of labor agreements to industries as a whole, as it is practiced in many democratic countries.

Methods for Making New Job Assignments

THE author makes his greatest contribution in outlining methods for the successful installation of new job assignments. The words of caution sounded throughout the book, and the checklist at the end of the book to guide management in the extension of work assignments, culled from the failures and successes of eighteen

cotton mills surveyed for this book, will certainly prove of value. In changing workers' duties, these separate factors must be considered: first, the extent to which operating conditions justify a change; second, the cooperation of the supervisory and executive personnel; and thirdly, the cooperation of labor.

Management is cautioned that work and technical conditions must allow for these contemplated changes in job assignments. For management to assure itself on this issue, the author suggests that the plant be surveyed before each installation, that operating conditions be tuned up, lax work paces be eliminated, and that operating practices be improved, standardized and stabilized. The work place should be made safe and healthful. Adequate records, supplemented by direct inspection of the workshop were found to be helpful in maintaining conditions. Outside consultants were found valuable in determining whether external conditions justified the proposed work extensions. Management should place as much emphasis upon maintaining operating conditions at the desired level as in establishing them in the first place.

Operating Conditions Must Not Slip

THE great measure of dependence of all interrelated industrial organizations upon the successful coordination, and timing of operations, makes necessary an efficient and adapted managerial and supervisory staff. These persons must be willing and capable of employing the engineering techniques. Otherwise relapses will throw the entire program into disrepute. To accomplish these purposes, experience has shown the need for objective records and measures of performance which will "indicate promptly whenever the level of conditions or materials sags or work burdens increase." Systematic and personal follow-up of conditions by top management guarantees the continuance of good working conditions. The supervisory force must be trained in these methods, or be replaced, preferably before an installation of new job schedules, by qualified persons.

The author frequently repeats the thought that successful installations require labor's cooperation. Throughout the book there runs the thought that the "stretch-out" has been the focus for all labor discontent. It is the purpose of the author to guide management in avoiding ruptures with labor which may result in strikes.

The book contains many warnings against bad methods of introducing new job assignments. The author urges continuous, unhurried, progressive installations of small changes. "Every effort (should be) made to harvest these opportunities at the time so that the installation of labor saving techniques may have the advantages of association with the installation of the machines." "Large revolutionary extensions" are difficult and risky. New job assignments are most successfully introduced in good times. The author found that the companies which protected their workers against displacement, demotion and other risks effected these changes in jobs with the least difficulty.

Labor's Cooperation Essential

CHANGES in work assignment are most smoothly made with the cooperation of labor. While good will and satisfactory past relations with individual employees may minimize the difficulties, the most successful installations proceed through "collective understanding" with a bona-fide union. The existence of sound relations between the employer and the union, prior to any changes in job assignment, establishes the basis for the necessary confidence in management, and the mechanics and precedents for frank and free communication between management and labor on all installations.

Meetings between representatives of management and labor during the introduction and application of new methods of operation permit management to secure labor's candid reactions to, and experience with, the new jobs and to correct conditions which might cause considerable unrest. Such conferences also allow management to explain fully these new arrangements to the workers' representatives. The author also advises management that it is wiser for it to have established relations with a union, prior to changes in work assignment, since his surveys indicate that workers are, otherwise, likely to create a union "during the installation," which will invariably oppose all new job extensions. He looks upon unions as the best guarantee that workers will learn of the true merits of the proposed extension.

Place of National Unions

WHILE the author recognizes the need for sound collective bargaining as a prerequisite to the successful application of new job assignments, he exhibits a decided prejudice against national unions in preference to individual plant unions. He overlooks the fact that local unions are unable effectively to engage in equal bargaining on such highly technical questions with local management.

Isolated independent unions have to rely upon management's statements, and are unable to check them independently. In fact, the author acknowledges this deficiency to exist, but relies upon management's frankness to supply such local unions with all the information and answers they may need. A local company union may turn to outside engineers but the latter do not possess an adequate understanding of labor's approach. In the handling of this problem the author shows distinct limitations. The lack of recognition of the functions of a national union, in connection with extensions of work assignments, is a decided shortcoming of this book.

What T. W. U. A. Does

THE national union in the textile industry, for example, the Textile Workers Union of America, furnishes its local unions with technical aid for reviewing, judging and checking employers' proposed new job assignments, and methods of caring for

the displaced workers. The union has developed criteria by which to test the adequacy of a plan, and the propriety of the new job assignments in terms of the workers' own interests. They are applied to each installation.

The union has studied the experience of many mills and makes these results available to its local unions. Specially trained representatives help local unions in their negotiations with management on these technical questions. These persons together with the local union committees, formulate the counterproposals, and develop the final agreements with local management and its advisers. As a result, local unions now are able to turn to their own duly elected representatives to check employer proposals, and to formulate programs which will safeguard the workers' interests. The workers as a result have greater confidence in the final arrangements jointly agreed upon by management and the union.

The general acceptance of collective bargaining with a national union results in industry-wide standards as to job assignments. Regular procedures are developed to deal with such problems, and to care for the displaced workers. These questions are dealt with in the same orderly manner as all differences between management and labor. The results are generally more satisfactory. The development of industry standards, moreover, facilitates the introduction of job changes which have already been tried in individual plants. Collective bargaining with bona-fide local unions, affiliated with national unions, is the best guarantee for industrial peace, and for the protection of the interests of labor and management.

Effective labor saving installations are made by firms which are most successful "from (the) human relations point of view. . . . Good management results were almost as closely associated with provision of good labor consequences as good labor results were dependent upon good management." The most favorable background for the introduction of new job assignments is collective bargaining carried by a management aware of its personnel problems and prepared to adapt its organization, policies and procedures to its deliberations and agreements with a local union affiliated with a national union. In every plan adequate attention must be given to provision for the displaced or demoted workers, and to the establishment of proper job assignments.

Technology and Labor

This book is a review and appraisal of "Technology and Labor" by Elliott Dunlap Smith in collaboration with Richmond Carter Nyman, (Yale University Press and Institute of Human Relations: New Haven, Conn.; 1939, 216 pp. Price \$3.00).

The book is a summary of the conclusions reached by the authors after making first hand observations and investigations of "eighteen cotton mills which typified the main variations in the industry, in plant, location, equipment, personnel, and management, in the methods of handling the change, and in the results that occurred." All parties to the change were

visited, and their reactions secured. This book is the first distinct effort to discuss the influence of various factors on the "human problems of labor technology."

The authors first consider the major effects of changes in work assignment upon the worker, and the types of installations which cause strife. They then outline the principal managerial, and labor problems, encountered in making these changes.

While this book is based on textile experience, a broader setting for the original investigation would have offered a check on many conclusions. Simpler and more direct language would have facilitated the reading. Better organization of the material would have suggested many basic problems, and made the book more interesting.

The book is based upon experiences developed prior to the present industrial union movement. As such it lacks a full understanding of its purposes and methods. Even more significant advice, than that contained in this volume, may be garnered from current experiences of unions and management, pioneering in the field of collective bargaining on the subject of job assignments.

A Country Plunged into a National War Emergency Must have a Reserve of Trained Workers, Capable of Doing their Jobs, and Qualified for Promotion to Supervisory Jobs. It Must also have Well Tried Training Plans that Can be Expanded Immediately.

An English Training Program

Extract from Report

By G. A. ROBINSON

South East London Technical Institute,
London, England.

IN THE South East of London, England there is a rather unusual technical institute. It is recognized as one of the Colleges of the University of London, but instead of devoting its attention to preparing students for college degrees, it aims to give such training in practical manufacturing operations as will ensure jobs for its graduates in the local factories, mainly so-called heavy industries.

Center for Management Education

IN ITS extension division it also aims to meet the needs of workers, foremen and junior executives employed in local plants. To quote from a report, "The Institute has established itself as the center for works management education in South London."

Believing that a description of the courses offered would be of interest to industrial personnel men, in the development of their own training programs, and in tying these programs to local universities and vocational schools, we give below some of the courses.

Advanced Course in Works Management by Case Study Method. Admission to this course is restricted to junior executives, whose training and/or experience will permit them to take an active part in discussions with visiting senior executives.

The instructor receives an appropriation to enable him to visit representative companies, to obtain from each full particulars of some knotty problems, mainly in the personnel field, which these companies had been up against. Each company gives the instructor full particulars of the problems.

These are written up by the instructor and mimeographed. Two weeks before each class is held, the junior executives, who are the students, are given copies of the problem to be considered. They are expected to come to the class with what they think would be the best way to solve the problem.

Senior Executive Gives Right Answer

A SENIOR executive from the company attends, and his job is to give the students any further information they need. The students, with the aid of this supplementary information, and through discussion of the solutions prepared by each, finally work through to what they think would be the best solution.

The senior executive then tells the group how the problem was actually solved. If the actual solution was different from that worked out by the students, he explains why. Arrangements are made for those junior executives, who can get permission, to visit the plant and see the solution in operation.

Supervisory Course. The object of this course is to give foremen, supervisors, charge-hands, and those aspiring to such posts, an opportunity of discussing their jobs in relation to modern works organisation and labour relations. The keynotes of the modern foreman's duties are leadership and co-operation, and knowledge of the work of other departments will enable him to fulfil his duties with a much greater appreciation of their importance in the general scheme of production.

A short lecture, usually by a visiting works executive, is given each evening, but the meetings are mainly conducted by discussion and interchange of experience.

Value of Examination System

FOREMANSHIP and *Works Supervision Course.* This course is for "Charge Hands, Foremen and Superintendents."

In England the Institute of Industrial Administration gives examinations in various practical plant subjects, including foremanship and works supervision, and issues certificates to those who pass. These examinations give the student something definite to aim at, in attending a foreman training class. As the courses and examinations are developed with the aid of local companies, a certificate is a big help to a supervisor or superintendent in getting a promotion, or another job if he is laid off.

"To meet the requirements of works control for administrative purposes, the two years' course outlined below has been arranged. The Institute of Industrial Administration will assess the examinations and will issue one interim certificate per subject to each examinee as and when he passes."

Subjects examined

- (1) General principles of Foremanship and Supervision
- (2) Elements of Labour Management
- (3) Principles of Production and Planning

Second Year Subjects:

- (4) Principles of Remuneration and Estimating
- (5) Elements of Costing

Examination Syllabus

THE *examination syllabus* for Foremanship and Supervision is as follows:

1. GENERAL PRINCIPLES OF FOREMANSHIP AND SUPERVISION

Outline of factory administration. Co-operation between departments. Types of foremanship and supervision in varying organisations. The tone of a workshop. Essentials of leadership. Qualities of a successful foreman, and their development. Duties and responsibilities. Relations with the management and with the employees. Executive control. Employee representation. Accident prevention. Plant efficiency. Prevention of waste. Industrial psychology.

2. ELEMENTS OF LABOUR MANAGEMENT

Organisation and duties of a Labour Department. Recruitment, training and discharge of personnel. Working conditions. Job specification. Employment records and graphs. Health services and facilities. Keeping in touch with employees. Education. Factory and other legislation. Workmen's compensation. Welfare work. Canteens, clubs, recreation.

3. PRINCIPLES OF PRODUCTION AND PLANNING

The importance of production in factory organisation. Its initiation and authorisation. Relations of production department with other departments. Function of Design. The Drawing Office. Production planning methods. Plant balance and layout. Plant and tool provision in all stages. Mechanical handling. Progress control methods. Stores organisation and methods.

4. PRINCIPLES OF REMUNERATION AND ESTIMATING

Economic theories of wages. Daywork and incentive methods of payment. Timekeeping and wages office routine. Qualifications of the rate-fixer. Organisation of rate-fixing department. Time and motion study. Their bearing on efficiency of work, and on job rates. Factors in construction of job rates. Function and qualifications of the Estimator. Job analysis. Time standards and allowances. Material requirements. Provision for oncosts. Purpose and construction of estimates. Comparison with actual costs.

5. ELEMENTS OF COSTING

Nature and importance of costing. An aid to management. Its value to the foreman. How costs are constructed. Recording and allocation of labour and material costs, direct and indirect. Explanation of oncosts. How they affect cost of production. Their classification and allocation. Standard costs. Costing according to operations—job, multiple, process, etc. Cost recovery.

Estimating, Planning and Ratefixing. The Advanced Course of 12 to 15 meetings is primarily intended for experienced machine tool workers who are desirous of

obtaining a knowledge of the function and work of a Planning Department, with a view to eventually taking over the duties of a ratefixer. Admission to the course will therefore normally be restricted to persons over the age of 21 years who have had several years' machine shop experience.

The work covered in the course should also prove helpful to many already engaged in ratefixing and to those preparing for the Graduateship Examination of the institution of Production Engineers.

The course work will deal with the general principles of estimating and with typical procedures in dealing with orders. The Co-relation of Departments, Preliminary Planning and the Preparation of Operation Sheets or Lay-outs will also be considered.

A large proportion of the time available will be devoted to a selection of carefully graded examples of Operation Planning taken from actual practice.

The essential qualities and requisite knowledge of the basic processes and machine tools for successful ratefixing, methods of calculating cutting times, allowances, modifications to established rates, temporary and fixed rates, methods of keeping records, etc., will be dealt with.

Blue prints will be used throughout the course and examples of various types of forms used in practice will be exhibited.

Needy Widows, Dispossessed Farmers, Unemployed Mechanics Always feel They have a Right to be County Assessor to Keep the Wolf from Their Door. In many Cases They Think it is an Obligation the County Owes to Them.

Too Many Elections

By C. B. WIVEL

Eastern New Mexico Junior College,
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OUR American democracy was established with the intention of preserving our personal liberties, making us secure from the development of tyranny in government, and guaranteeing us the utmost individual freedom in economic and social affairs. Our colonial forefathers looked sincerely upon rugged individualism as a basic foundation of the economic and social order that had been established. Government was looked upon with suspicion. The founders of our country wanted the least possible amount of it. Most of them thought, acted, and lived their lives primarily as a rural folk.

Clerical Work Called Unproductive

RECORDS, bookkeeping, and office routine, appeared to them as unproductive effort, or perhaps a necessary evil. These colonial fathers wanted government to do the least possible that was necessary to protect us from oppression. Little wonder is it that a famous patriot said, "That government governs best which governs least."

For the major portion of the first 150 years of our national life this philosophy dominated our attitude toward government and governmental employees, and in many places still does.

There is still a current conviction that it is perfectly all right to permit an individual in economic difficulties to run for office, in county government, to obtain help to solve his financial problems. Needy widows, dispossessed farmers, unemployed mechanics always feel that they have a right to be county assessor in order to help

keep the wolf from their door; nay, more in many instances, they think it is an obligation the county owes to them. The right of any aspiring citizen to run for sheriff is an American tradition. Ample evidence of the tenacity with which the electorate holds to its right to elect most state and county officers is shown, when it strongly opposes attempts to change state constitutional provisions respecting the state superintendents.

The Government's Job

ANY significant shift in viewpoint toward public services will probably have to follow an educational process about the nature of public services rendered by government today. The objectives of governmental services must be clearly set forth and understood. It must be made clear that the objectives of public services are not to solve personal economic problems of certain unemployed individuals. Rather it must be understood that government is simply a cooperative agency set up by society to perform certain functions, which can be more economically and efficiently performed by government than by each citizen himself.

It would seem desirable to understand how these services might be provided in the most economical and efficient manner and how they might be continuously improved. Only in this way may we expect them to aid us in preserving democracy.

Where Specialized Training Necessary

LAWYERS, doctors, teachers, engineers, business men, research workers, salesmen, journalists, advertising men, actors follow pursuits for which they have had to have specialized training. Yet strange as it may sound, we have refused to accept these principles as applying to numerous offices—many of which present many technical problems—in federal, state, and county government. Though we would scoff at the idea of choosing our doctor, lawyer, our engineer for our personal services by a partisan election, we still cling to the custom of choosing our county superintendent of schools, our county treasurer, our assessor by partisan elections.

Some headway has been made, more particularly in federal and state government, in putting into force the principles of professional training for public services. For over fifty years we have seen the growth of civil service systems and, while they are not perfect, they recognize the principle of specialization and efficiency as basic for many branches of government. A recent report points out that there are over 3000 distinct vocational services rendered by our various governments. This in itself should make it clear that the complexity of government now demands technical training for each type of service, protection of the efficient worker in the service, and the elimination of the spoils system in filling many positions.

In national defense we have long since recognized the need for technical preparation for governmental service. The rigorous training demanded of officers of our

Army, Navy, and Marine Corps indicate that the spoils system has no place there. We demand and obtain the best we can get for the service of national defense. In our engineering services we obtain some of the best skilled workers in the land. In education, in sanitation, in law, and in the diplomatic services we require professional preparation of those who wish to be employed.

Youth's Views

AS YET our youth do not look upon positions with government as desirable opportunities for careers where they may render services to society. Rather they tend to discount this form of employment. They poignantly state that the best opportunities are in private industry where the attractive salaries are paid, and riches are the reward of those who are capable. If perchance circumstances lead us into public service through election at the polls, we stay long enough to learn the difference between public funds and our own, how to be somewhat efficient in our work. Then the law says we must step aside and allow another enterpriser at the polls to have his four years of experience in the office.

Lessons of Last Ten Years

ECONOMIC depression has forced us to take some national inventories. Among these inventories we have found that as a people we have ravished many of our best national resources. We have even come to admit that if our children are to have the opportunities of enjoying a fair standard of living we must protect our minerals, our forests, our soil; and we must conserve our national health.

In the matter of soil erosion alone we have found that effective kind of service can not be rendered by choosing our workers at the polls. We have found it necessary to select technicians specifically trained for varied tasks, especially in the fields of agriculture and engineering. All of these experiences have forced us to see the very great importance of selecting workers—not on the basis of vote-getting abilities—but upon the basis of rendering a technical service to society. These experiences have forced before the public eye the problem of the professionalization of public services, if our best values of democracy are to be preserved.

Whenever a program is advanced providing for standards for those who engage in public service there are generally objections, because the public is afraid that it will have additional permanent employees on the public payroll. In the next place, there is the charge that the plan is not democratic. That the long ballot method of choosing public servants does not tend to serve the best interests of democracy is seldom given thought. How one voter, a busy citizen engaged in his pursuit of a livelihood, can ever obtain the time or have the opportunity to learn the merits or demerits of scores of candidates for numerous offices is beyond one's imagination. If one votes a straight ticket, he assumes that the nominees of his party are the best qualified technically.

Voting a Straight Ticket

SELECTION of officials by the straight ticket is exactly what the county chairmen of our political parties want. If the voters will trust the ward leaders and county chairmen to put up the long list of officials, then the politicians may continue their reign in public offices. While the selection of our public servants, particularly in city and county government, may have a semblance of the democratic method in it, even a cursory examination of its practice would show that it does not protect democracy.

It merely gives a few selfish, grasping politicians the opportunity, under a democratic form of government, to exercise their powers for the benefit of a small group. It is because of these political leaders that it is always difficult to introduce a more scientific procedure in selecting public employees.

It seems ironical that, while we reject a method of choosing our governmental employees on a professional basis, we play into the hands of the professional politician who is a past master, a highly proficient technician, in the field of politics.

How About a Short Ballot

DIFFICULT as the task appears, it would seem desirable to promote a policy favoring the short ballot. Under this program the elector votes for a few persons at both national and local elections. He has a few names to learn. He has a better chance of learning the philosophy, the attitudes, the policy of a few candidates. The few who are aspiring to office can be publicized widely. Information can be disseminated about them. They can be put on the spot so that the electorate knows where they stand. Moreover, if after election policies are not carried out as promised, it is easy to place responsibility upon the shoulders of those who must assume it.

In order that the democratic policy may prevail it is proposed that those officials who are elected to office constitute what are considered the policy-forming agencies. The short list of candidates chosen by the electorate includes those who will set policies for the various branches of our government. Under this method we are really putting into practice the method of a representative democracy. We elect those officials who are to decide numerous issues in government. If they fail, or we as citizens disagree with the execution of their policies, then we refuse to return them to office at the next election.

Ample precedent for following this policy is already found in various branches of our governmental agencies. We elect a president and vice-president. We generally know ahead of time quite a bit about their attitudes on national issues; we have a fairly good chance of knowing something about the policies they will follow. But after their election we do not object to their appointment of a cabinet. We think they are best qualified to choose individuals with some degree of special preparation for each of the departments. To a certain extent we follow this same policy with respect to the election of the governor in many states.

Elect Policy Formers Only

IN CERTAIN city and county governments we elect policy-forming bodies. These policy-forming bodies in turn appoint a professionally qualified person to be city manager or county manager. All over our land we elect members of school boards, who while not always respecting the best interest of childhood, nevertheless for the most part do try to set policies and follow the programs which the electors want.

Now it is interesting to note that if our policy-forming bodies were allowed, every two or four years, to fill all the numerous offices under their supervision, we would have simply a replica of the Jacksonian spoils system. But that is exactly what we do not do in those cities and counties and school districts, which have accepted the policy of the professionalization of public services. No matter how often we change the composition of our policy-forming bodies, the employees in those branches of government who are technically trained, remain in office as careerists.

Is a Sheriff a Technician?

TWO issues seem to arise concerning the use of the short ballot. First, we have to educate our citizens to realize that most of our county officials are not policy-forming individuals but are technicians. They should be chosen and retained because of their technical qualifications. The short ballot provides a means whereby this can be done. Second, it is evident that the issue is not one of admitting that we need professionally trained workers for many of our positions in government. The issue is—shall we extend this policy to numerous positions now filled primarily by political means? As soon as we come to look upon government positions as technical tasks, which should be performed in a business-like manner, by the best qualified workers regardless of party, we may expect the short ballot to be more favorably received.

Numerous problems arise in the operation of a plan which places public officers on a professional scale. Many of them are well known today in the field of personnel psychology. It must not be expected that once an agency of government has embarked on a program of the professional selection of its workers, that the plan will be perfect or that it will run itself. Personnel problems in the government service are said to be little different from those in large corporations. Both must face such factors as influence, pull, internal politics, favoritism, nepotism, selection, transfer, dismissal, retirement, in-service training, and departmental disputes.

At the outset the problems of standards of training and personal qualifications for each position should be set up. In state government it would seem desirable for a non-partisan, professionally trained personnel department or civil service commission to be organized. Such a department might have as its head an official who is a member of the governor's cabinet. He might act as a *laisson officer* between the careerists in government and the policy-forming group who are in close touch with the governor.

What New York City Does

IN THE case of New York City, where the civil service commission performs numerous personnel duties, there seems little need for a separate personnel department. In fact, it matters little whether the administration of these personnel problems is under a personnel department or a civil service commission, providing the general principles of selection, appointment, and retention of employees are followed on a professional basis. In action today the civil service commission of New York City affords a good example of how numerous types of work are classified, how preparation for these positions is carefully specified, and the workers are chosen on a professional basis.

In specifying a high type of training, high personal qualities, and satisfactory mental and physical health, government would be merely following the principles we have already set up for teachers, doctors, nurses, and many others engaged in rendering public services.

After a candidate for employment in the public service has met the requirements for certification, has passed the necessary physical and mental examinations, has been placed on the eligibility list, he then should be required to serve a period of probably one year as an internship. During this period the training institution and the personnel department should work together to properly place and adjust desirable candidates to their duties. This procedure has proved beneficial in the fields of teaching, medicine, and business. Following the internship the candidate should be placed upon probation for a period of two or three years. During this time he has a chance to prove his worth. Definite standards of achievement have been set up and he knows what goals he should strive to attain.

While serving his internship of probationary period a candidate may show by aptitude and training that he is better qualified to pursue one line of service closely related to that chosen by him in the first place. In this instance the personnel department should have the proper to make transfer with a minimum of adjustment difficulties. Private industry has already shown that adjustments at first often keep valuable workers with a firm and materially reduce the cost of high labor turnover.

Work for Personnel Department

AFTER a candidate has served his probationary period, he should be eligible for indefinite appointment. Throughout his employment with the government he should understand that he is serving on indefinite tenure. As long as his services are satisfactory, he remains in the employ of the government. A personnel department with definite standards of achievement, specific criteria and techniques for evaluating his work, and continuous ratings of performance, would do much to insure the public a better type of service and to protect the worthy worker in his employment.

In order to provide efficiency and continuous improvement in public services provisions should be made for in-service training. There should be provisions for leaves of absence for advanced study, opportunity to travel in other places, and the opportunity for certain specialists to be loaned to other states or other branches of government when their skills are in special demand. Such principles of continuous preparation have already proved their value in the health services, in education, and in the military branches of the federal government.

Grievance Machinery

IN THE matter of disputes between supervisory officers and workers there should be established by the personnel department definite lines of procedure. Evidence should be heard in disputes by supervisory officers and by workers in the same grade of work as the person engaged in the dispute. Full authority should be given any such committee or board to go into all angles of the difficulty and to make recommendations to the head of the branch of government concerned. As a protection for the employee, it should be specified that the workers in this same grade, who are on the hearing board, should not be his co-workers, or be personally acquainted with him. Final decisions in all such disputes should reside with the career officials in the personnel department or in the civil service commission. It is doubtful if the final decision should be in the hands of the elective or appointive officers. In the long run the worker is most likely to receive the fairest treatment, and the public is likely to have its interests best protected by delegating to a personnel department, especially trained for such matters, the authority to pass final judgment upon disputes between the workers and supervisory officers.

In the Panama Canal Zone

OUTSTANDING examples of the personnel problems involved in rendering a high type of public service may be found in the experiences of the United States Government in the Panama Canal Zone. In this area the federal government owns and operates steamships, railroad trains, hotels, department stores, and manufacturing plants. It also provides recreational centers and directs other activities. During the period of about thirty years this phase of our national government's activities has provided the opportunity to appraise the efforts of government in rendering a high type of public service.

In Dimock's survey of the United States Government's service in the Canal Zone he points out certain weaknesses in the program. First, it appears that it is sometimes necessary to resort to the subterfuge of insubordination in order to remove an incompetent person. Second, he believes operating efficiency might be improved if the management had more freedom in hiring, dismissing, and disciplining workers. Third, it is suggested a modern personnel department might solve many of these shortcomings.

Favorable Evidence

FROM the favorable side Dr. Dimock presents much encouraging evidence. First, in the Panama Canal service are many workers, popularly called old-timers, who are proud of their records and who are ever vigilant to keep any form of partisanship, patronage, or nepotism from creeping in. Second, the record of these public servants for honesty is enviable. He summarizes by saying . . . "no commercial enterprises could be found which are freer from the suspicion of dishonesty than are those administered by the Zone officials." Third, he indicates that the government is a model employer. He finds no evidence of the bullying and injustice which workers sometimes meet in private industry. Fourth, it is emphasized that in the Canal Zone there have grown up commendable traditions of loyalty, honesty, and cooperation. Fifth, the report augurs well for the success of governmental services if staffed by career workers when he states: "Given the desire, the freedom, the organization, the personnel, the methods, and the business, government-operated services can be made as efficient as any."

Concluding, it seems logical to assume that our democracy has its best chances of being preserved by a corps of workers whose training, apprenticeship, and final assumption of duties, have prepared them personally to render an honorable service rather than gain great power and wealth.

From the inception of their careers these workers have had emphasized the matter of efficiency, of rendering service, of competition to prove one's ability, of the practice of objectivity in evaluating one's services, and the attitude of looking upon one's job as a professional matter. Throughout the period of internship and probation emphasis has been, not upon acquiring great wealth, but of establishing one's self as a competent worker well qualified to render a service to society.

Modern psychology supports the experience of the United States as an employer in the Canal Zone. It is psychologically sound to say that honest, praiseworthy, efficient traditions of service can just as well be established as traditions of graft and dishonesty. It depends for the most part on our attitude, upon what we set out to do.

The traditions of the men who follow the law of the sea have been established through a psychology that places service beyond personal gain. In the Coast Guard Service, in the military branches of government, in numerous branches of the United States Government there exist today traditions that are far more binding than any oath an elected public official may take when he assumes office.

Protection for Democracy

IT SEEMS fair to conclude that as the professionalization idea expands to more services we may expect traditions of devotion to duty to grow up as they have in other branches of government. It would also seem that there should be little

difficulty in deciding whether a professional worker or political aspirant is best qualified to protect our democracy. On the one hand, we may have politically chosen workers trying to solve the perplexing problem of sanitation, soil erosion, conservation of natural resources, protection of our national resources. On the other hand, we may prefer to have these problems attacked by technicians chosen for their professional preparation and retained for their achievement. When the thoughtful citizen is really informed upon the merits of the case, he should have little difficulty in seeing how professionalization of public services can best preserve our democracy.

In One Company that Takes Four Hours to Hire an Employee, Including Filling in Personnel Forms, Taking Mental and Job Tests, Medical Examination and Several Interviews only 16 Proved unsatisfactory out of 700 Hired.

Sizing Up Job Applicants

BY EDWARD N. HAY

Pennsylvania Company,
Philadelphia, Pa.

THERE is no more popular and universal pastime than "sizing up" other people. Every executive must develop skill in this art; the politician's hold on his office depends on it. Housewives indulge in the pastime across the back fence. It is the very stock in trade of the Personnel worker. Accordingly, it is strange that so little has been done to develop systematic methods of taking account of all factors involved.

There seem to be five broad groups of facts that cover the principal things we want to know about a person.

What We Want to Know

What is he like, personally?
What has he done?
What does he know?
What does he want to do?
What are his potentialities?

Factors

Social Development
Work experience
Education
Interests
Mental & physical abilities

Social Development

THE economic, social and intellectual atmosphere in which an individual has been reared and in which he had lived his mature years, largely determine what kind of man he is. These circumstances shape his speech, determine his social attitudes, his manners and his mental slant.

The vantage point from which an employment interviewer judges another individual in this complex civilization is his own life experience. His social maturity and sophistication mark the boundaries of his area of observation of the life of an-

other person. It is difficult for a man to judge another man whose way of living has been wholly different from his own.

Most interviewers, even successful ones, work within a narrow range of experience. For instance, a successful interviewer of middle age, perhaps the son of a machine shop foreman, and of modest social and economic advantages may be exceptionally successful in judging the general run of machine shop workers. He is at a disadvantage and on the defensive however in attempting to judge a cultured, highly educated woman who has been brought up with every social and financial advantage. This example illustrates the limitation under which every interviewer must work. The broader the social and work experience of the interviewer and the more mature, the more likely he is to be able to judge a wide range of types of applicants.

Experience Shapes Social Views

A MAN'S work experience is probably the thing that sets him apart from other men most clearly. However, experience is more than a mere process of acquiring skill; it is an important influence also in shaping economic and social views. Experience alone, however, is an insufficient basis for determining a man's capacities since he may have many aptitudes, which his past experience has not utilized, and his true interests may lie in another direction entirely.

Once more we find that the interviewer is limited in judging others by his own experience. This limitation is often a very severe one, because in many kinds of employment judgments must be formed as to the probable effectiveness in a different situation of the particular experience the applicant has had. Aside from judging the skills of the applicant, the interviewer must evaluate the success that he has attained, which can be judged in partial degree from references, but more effectively from independent inquiries made of former employers. Most interviewers attach undue importance to this phase of the applicant's qualifications. Indeed some interviewers disregard everything else. Of course, in certain jobs, such as the skilled trades, past experience is the most important determinant of an applicant's desirability.

Education and Interests

THE amount of education, its kind and quality and the use to which it is put, are vital factors in the life of the individual.

Here again the interviewer is limited a good deal by his own education. There are, however, more facts available for his judgment; the amount of education and its kind, the sorts of schools, the grades attained and by-products of a non-academic nature, including adjustment to individuals with whom he has been associating while at school.

What are the differences between a plumber and a carpenter, between a doctor and an engineer? Aren't the social, mental and to a large extent the educational

requirements the same? The essential difference in each case is a matter of interest or preference.

Most employment men prefer as toolmaker apprentices boys who come from families where hand-skills rather than white-collar ones prevail. They know from experience that sometimes boys from white-collar families who embark on an apprentice course, in the absence of other opportunity, may turn from it to office work when the chance offers. The reason is that most white-collar workers consider their occupation to be on a higher social plane than any sort of hand work.

Strong has done valuable work in determining the "pattern of interests" for various professions and occupations. He shows that most successful lawyers, for example, have likes and dislikes that are pretty much the same. Some of the insurance companies use his method of analysis in estimating the probable success of prospective life insurance salesmen and will not employ men whose interests are greatly different from the pattern prevailing among successful salesmen.

This illustrates the importance of analyzing the interests of applicants as a clue to probable success.

Abilities, Mental and Physical

INTERVIEWERS, like other people, most commonly judge another person by the "total impression" which they receive. A pleasing personality engenders confidence, and encourages the interviewer to ascribe qualities to the applicant which he may not possess. Every interviewer is familiar with the experience of having been "oversold" by an applicant of winning personality. Of course the one sure way to find out how much ability an applicant has is to put him on the job and let him demonstrate. This, however, is impracticable as a deliberate policy, although it is necessarily followed in practice because of the impossibility of forming a final judgment of the applicant before seeing him at work. We merely *think* he is good and we employ him, only to find out that he isn't, which is the same as if we had taken him on trial. The result—high turnover—is expensive.

Latent Capacities

WHILE a man's social development, his attitudes, his education and experience determine the limits of achievement to which he is likely to go, yet he often has latent capacities extending far beyond these limits. It is generally believed that a man's final accomplishment is determined mainly by his past successes. In the popular mind probably too little weight is given to other factors.

The "psychological test" is a laboratory means of giving the applicant a trial and while it seems incredible that a 20-minute test will give anything like the same information as a three-months trial, actually this may be the case a high percentage of the time. For example, suppose we have two candidates for a clerical position and each is given an intelligence test consuming 20 minutes. One makes a score superior only to scores of the lowest 20% of present employees, and the other a

score better than can be achieved by 95% of them. The conclusion is obvious. The second man has far more intelligence than the former.

Mental Abilities May Not Be Used

WE ARE therefore justified in concluding that his ultimate potentialities far exceed those of the first man. However, there are men who are smart but lazy and others who, though clever, possess personalities which interfere with their achieving the success which their abilities warrant. It is, therefore, insufficient merely to determine the mental ability of the applicant. Analysis of his temperament gives a clue to further possibilities for success or failure. Furthermore, certain types of work seem to require special abilities or aptitudes and these can sometimes be determined by test. Testing for abilities and aptitudes requires the scientific method and a considerable understanding of the mechanism of the human mind and body. This is the field of the psychologist and, on the side of temperament, of the psychiatrist.

Uses of Psychologists

INDUSTRY has not yet availed itself to any large extent of the services of the psychologist and the tools which he has at his command. Perhaps one reason for this is that we all of us consider ourselves "good judges of men" and we are reluctant to subordinate our judgment to any techniques so complicated and theoretical looking as those provided by psychology. However, of the five areas of investigation which have been discussed this is the only one requiring any special technique and training. The others can be mastered by any person of good average ability and can be mastered in a moderately short time as well.

It will not do, however, to give the determination of abilities to the professional psychologist who is accustomed to working in the laboratory. He is used to dealing with problems from which he has eliminated all of the variables so as to provide a simple situation in which to experiment. On the contrary, the successful industrial psychologist must, as the name implies, be a blend of industrialist and psychologist. He needs all the skill, knowledge and command of the tools of the trade possessed by the psychologist, but he must learn to use these in industrial situations where conditions cannot be controlled artificially in order to isolate a single variable. When industry learns to use psychology and the psychologist learns how to serve industry, many of our present industrial and human problems can be solved.

This brief discussion of the factors involved in the analysis of the applicant shows that there are other important considerations than experience. Any thorough study of an applicant must give due weight to all five, although industrial interviewers do not usually do so. Indeed the more important the job, the more necessary it is that all five factors be considered, especially the one dealing with the applicant's mental and physical abilities.

Employee Rating is Really Up-side-down. A Foreman Rating a Worker is Really Trying to Measure His Own Inability to Get the Best Work out of the Man, or the Poor Job the Personnel Department did in Hiring the Worker.

Common Fallacies *in* Employee Ratings

By JACK H. POCKRASS

Washington, D. C.

EMPLOYEE rating systems have frequently, and justifiably, been criticized because of their untrustworthiness. With the possible exception of individuals who are primarily interested in selling their own pet rating schemes, there has been fairly uniform agreement that efforts to measure employee's service value satisfactorily have been relatively unsuccessful. This has been especially true when attempts have been made to evaluate positions whose criteria of production and efficiency are not measurable in numbers of work units such as the number of cards punched, pages typed, or claims processed per hour.

Ignorance Not the Cause

ALTHOUGH attention has been properly called to pitfalls in the rating process such as errors of halo, leniency, and the like, these scapegoats alone are not to blame for unsuccessful rating systems. Even if the constant errors and systematic errors inherent in virtually all rating systems were controlled, many rating systems would still be unsatisfactory because of certain fallacies which have long persevered in the broader aspects of their administration. It is difficult to believe that this continuing maladministration is attributable to ignorance alone when one considers the abundance of literature relating to the theoretical, experimental, and practical aspects of the evaluation of individual work behavior and performance.

There has been ignorance, yes, but probably even more widely prevalent is the negative attitude that periodic ratings are unpleasant clerical tasks to be done with as quickly as possible; the inadequacy of whose results something to be rationalized

and forgotten as quickly as one's conscience might permit. Apologists have been universal and administrators have been content to excuse themselves on the grounds of expedience.

The following points, and there are more than those discussed here, indicate how thoroughly saturated with fallacies many rating systems have become. How many of these still persevere in systems with which you are familiar?

Self-Operating System

IT is amazing, and depressing, too, to know that administrators still request in all seriousness, "a personnel rating form which will evaluate accurately an employee's productivity and value to the service." There is apparently no recognition of the fact that the accuracy of evaluation is largely independent of the rating form. *Accuracy of evaluation is essentially a function of the degree of infallibility of judgment of the rater completing the rating form.* Even the Ordway-Laffan System, which purports to eliminate the judgment factor from the employee-evaluation process by requiring supervisors to report "facts of performance" for outstandingly good or poor employees, has not been able to achieve this objective. Frankly, it is extremely unlikely that a self-operating scale will ever be constructed.

One of the chief contributing causes of the failure of rating systems in many organizations has been this wishful thinking, that if a good rating scale were constructed it would function automatically, and produce valid results. Let the principle be known, therefore, that a rating scale cannot be separated from, and is generally no better than, the person who is to use it. It must be remembered that rating forms are essentially guide-posts pointing the direction which rating should take. The basic solution to many of the problems of employee evaluation will be found in the systematic training of those who are to do the rating.

Universal Scales

COROLLARY with this desire for a self-operating scale has been the mistaken attempt to make rating scales universally applicable, so that a given rating scale or schedule would apply to all and any positions in an organization. Because of the diversity of classes of positions in many organizations, it is desirable that separate rating forms be designed for the several classes of positions, based on job analyses preferably, so that forms may be adapted as closely as possible to employees' actual duties.

Despite the obviousness of the fact that the work factors involved in a stenographer's, claims clerk's, interviewer's or supervisor's duties are vastly different with respect to quality, quantity and function, there has been very little effort, until quite recently, to design rating scales in terms of the duties of the classes of positions being rated. This must be done if ratings are to present meaningful work-profiles of employees. A single yardstick is inapplicable to groups of employees engaged in

different tasks and the sooner that those engaged in administration realize the necessity for this individualization, the sooner will the will-o'-the-wisp chase for a universal rating scale be abandoned!

Trait Rating

PSYCHOLOGISTS have pointed out time and again that many of the "traits" which have been included in some scales for rating, such as: integrity, cooperativeness, leadership, loyalty, etc., do not exist as isolated behavioral units. The use of such trait names has justly fallen into disrepute; primarily, owing to the mistaken attempt to evaluate these as they existed abstractly. These so-called "traits" are not psychological entities but complex activities.

It is a well known fact that a person may be honest in some situations but not in others; that a person will cooperate with some fellow-employees but not with others; that a person may respond differently to identical stimuli on different occasions. Despite this fairly common knowledge, the attempt to rate performance in terms of non-existent abstractions and sometimes on an "all-or-none" basis rather than in terms of observable behavior has persisted. Is it any wonder that such ratings have been unreliable?

The Simplicity Fallacy

ONE frequently encounters listed among the alleged criteria of a good rating scale the injunction that rating forms must be simple—apparently for the reason that they may be completed quickly. When one considers the important personnel actions that are purportedly based upon or, at least, guided by service ratings, is not this process one that merits deliberation rather than speed? Reducing the number of factors on which employees are to be rated will deprive a rating program of the one function it is best able to perform—that of employee-training and development based on analysis of employee performance. If ratings are to give results in which credence may be placed, they should contain a sufficient number of work factors to give an adequate profile of the employee's abilities.

An analogy may be drawn between a rating scale and an objective examination. It has been determined statistically that increasing the number of test items in an examination, up to a certain limit, will increase the reliability of the examination. Similarly, increasing the number of pertinent factors in a rating scale will secure a wider sampling of work factors and should increase both its reliability and validity. Increasing the number of factors will naturally increase the amount of time necessary to complete each employee's form, but the return on this investment of time should warrant its expenditure.

Raters should not be rushed into completing forms nor should they be made to feel that a distasteful clerical task has been imposed upon them. Proper training

and motivation, and adequate time for thoughtful evaluation should secure better cooperation and more accurate evaluations.

The Holy Normal Distribution

SOMEHOW, the fallacy has persevered in the literature on service rating that the distribution of ratings for all employees should approach what is statistically known as a "normal distribution." Many rating plans today still retain this questionable procedure. This concept was taken over from the field of psychology where it was functioning properly within its limitations.

The groups being tested and rated under experimental controls constituted *random, unselected samplings*. In the field of public administration and in efficient industrial organizations employees are selected on the basis of minimum qualifications related to the job. These employees represent a *select* population when compared with the general population, not a random sampling. Therefore, instead of forming a "normal distribution," the ratings of groups who have passed through some selective process may be expected to present a distribution that finds many more being rated at the upper end of the distribution curve than would be the case if employees were simply picked out of the general population at random.

The curve characteristic for this select group will have to be determined on some basis other than an assumed "normal distribution." Any method that seeks to impose mathematical limitations on the distribution of ratings will result in injustices and affect employee morale adversely. Requiring specific percentages or numbers of employees to be rated in given categories of performance is unwarranted. Any procedure which makes mandatory that a certain percentage of employees be rated in terms of deciles or "Good," "Very Good," etc., or any other form of forced distribution is very questionable, from the points of both reality and employee-relations, since many employees will thereby automatically be assigned low ratings regardless of actual performance.

The Tyranny of Numbers

IF IT were not for the fact that the course of an organization's business requires that personnel actions be based on the relative merits of employees in each class of position, ratings of either "satisfactory" "unsatisfactory" might be sufficient. But because of the necessity for such actions it is essential to employ some means of discriminating between employees who actually exhibit varying degrees of efficiency. This need has been met superficially by assigning numerical equivalents to the various factors being rated and weighting these factors on some *a priori* basis.

There has been virtually no attempt to validate these scores, although an approach has been made in recently constructed scales which employ psychophysical techniques of scaling. Concomitant with the use of numerical ratings has been the

increasing trend toward the establishment of *critical* scores. That is, an employee's rating must reach a certain score if he is to be considered for salary advancement, or may not fall below a given minimum score without some form of disciplinary action being taken.

Unfortunately, proper consideration has not been given to the amount of error inherent in the rating situation and all too frequently administrators have placed implicit faith in what might be called "the tyranny of numbers." If ratings are not to be thoroughly discredited there must be recognition of the fact that the use of numerical equivalents in recording ratings is essentially a convenience, and that too much significance cannot be placed in the discriminativeness of the difference between a total rating of 80 and one of 75, no less one of 79. Furthermore, numerical scores alone are meaningless as a basis for personnel actions since two employees may have the same total score and yet have entirely different work characteristics—the same score being obtained by virtue of excellence in dissimilar factors.

Even assuming that ratings are perfectly objective, a total score alone will not indicate whether such score was obtained as a result of balanced accomplishment in several aspects of performance or as a result of outstanding accomplishment in a few activities which are weighted more heavily than others. The numerical rating is no more than a guide. The personnel folder for each employee should contain the completed analytic rating form as well as the numerical or descriptive final rating, since in considering employees for promotion, proficiency in a given group of factors may be more significant than other achievements, in terms of the job requirements of the higher position.

Employee Appeal Systems

IN MOST organizations it has been felt that employees would have more confidence in the rating system if provision were made for an appeals system, which would insure each employee of an impartial hearing of any grievance concerning his service rating. Because job security is involved to the extent that personnel actions are based on service ratings, such provision is necessary. An appeals system is fraught with danger, however, unless proper safeguards are exercised. An appeal is usually symptomatic of differences between the rater and the employee, and the setting up of an appeals board with the power to reverse or sustain ratings is no absolute solution to this supervisor-subordinate situation.

The satisfactoriness of an employee to an organization and the job satisfaction an employee derives from his work is largely dependent upon the state of rapport existing between the supervisor and subordinate. Regardless of whether the friction may be attributable to social, racial or political differences, employee inefficiency or supervisory malfeasance, the fact that such friction does exist will militate against effective relationships in the unit. A rating of "unsatisfactory" does not indicate whether the supervisor or the subordinate is at fault.

Furthermore, placing the supervisor on the defensive against his subordinate will have undesirable repercussions regardless of who is victorious. Whether the employee wins or loses his appeal, his position is more precarious than it was previously. Employees are fully aware of this fact and, if an organization prides itself on its small number of employee appeals on service ratings, it had better open its eyes to the fact that employees may feel that they have more to gain by not appealing.

What is needed is a study of both the supervisor's and the subordinate's employment histories with respect to their ability to get along with fellow employees. To meet situations where such friction does exist, it would be desirable to make some provision for the transfer of the employee to another supervisor, or another division of the organization. It may then subsequently be determined whether the employee is one who cannot get along with his superiors, or whether the supervisor is one with whom his subordinates cannot cooperate.

Periodicity of Ratings

RATINGS should not come to employees as a surprise on an annual or semi-annual day of judgment! As previously suggested, the function that rating can most effectively serve is that of employee development—which should and must be a *continuous* process. In many personnel jurisdictions, employees are simply notified of their ratings without any discussion of any kind. In some jurisdictions it is the practice to discuss ratings with employees after forms have been officially submitted. In a few progressive organizations ratings are discussed with employees before final ratings are submitted so that employees will be aware of the bases underlying the supervisor's evaluation. If these discussions only take place at widely-spaced rating periods, their effectiveness is quickly lost.

Discussions between supervisor and subordinates should be a continuous process if the service is to benefit most. Faulty work habits should be discussed fairly and frankly with concrete suggestions as to their improvement. The effectiveness of such discussions and suggestions will depend a great deal upon their specificity and the supervisor's sincerity of interest in employee development. Development on the job comes from an awareness of strengths and weaknesses. It is an accepted psychological principle of learning that the awareness of one's progress is a definite stimulus in the improvement of learning. This continuous rating and training process will probably do more than anything else to gain employees' confidence and preclude the necessity for many appeals.

These have been some of the more general administrative pitfalls of which administrators should be aware. What is needed most is an awareness of the fallibility of human judgments, and the consequent limitations of rating systems.

Book Reviews

Book Review Editor, MR. EVERETT VAN EVERY

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SIDNEY HILLMAN

By George Soule. New York: The Macmillan Company, 1939, 237 pp: \$2.50

Reviewed by Book Review Editor

The life stories of great leaders always make interesting reading, but even more intriguing are the candid close-ups of intimate experiences that contribute to personal success and achievement. Business executives, labor officials, and students of industrial management will find this biographical sketch of Sidney Hillman a fascinating case-study of at least one important scene in American industrial democracy.

In a confused industrial economy of many conflicting views and shifting social changes, George Soule draws a vivid picture of a Russian-Jew who has become one of America's most respected labor statesmen. It was Sidney Hillman who effectively organized the great masses in the sweatshops, and lead his organization through its greatest growth at a period when the official labor movement was declining. The Amalgamated is only one of many successful trade unions, yet it stands out in bold relief to those who know their labor history and labor economics.

The secret of Hillman's success is an obvious goal, of the reader—and we catch glimpses of it here and there, but like many other forms of successful endeavor, the human factors are not subject to simple formulas.

Labor's Dependence on Profitable Industry

UNLIKE most rapidly advanced labor leaders, Sidney Hillman has never lost sight of organized labor's dependence on profitably operated industries. He is frequently in the council chambers of employers on matters of business economics and production problems; and the fact that his advice is sought by employers is indicative of this man's reputation to confer ably and squarely.

He is a skillful negotiator. . . never relinquishing an inch on matters of basic union principles. And yet when he enters the conference room there is an air of friendliness and understanding—a striking contrast to the usual horse-trading tactics and fearful jockeying for advantage. His constant effort seems to be to diminish the points of controversy and enlarge the ground of agreement. When he is compelled to fight, he does it in the field, not in the conference room. The fact that a conference exists is proof of some common ground. With this attitude Mr. Soule would have us consider Hillman "an ally of employers in seeking to stabilize labor relations and efficient production", while maintaining a close guard on those objectives which will make for better and more secure working conditions for the workers.

Not Propaganda

THE related instances notable in Hillman's climb to leadership are interwoven with sufficient well-known events to dispell any thought of this work being purely propaganda or even subtle public relations. Although the book may serve these ends, too, it is nevertheless a worthy contribution to the business literature of our time. Another reason for the book is confessed by the author in his last chapter in which he says that enemies are always combing the record for anything they might use, and so it is better to have the story told accurately, as a whole and in perspective.

In his closing sentence the author says of Hillman: "If more of us could catch his spirit, thinking rather of fulfilling democracy than merely defending it, there would need be no cause for uneasiness about the future of this nation." And as we lay the book down we recall one of Hillman's primary premises—that industry should furnish the human needs of those engaged in it—and we continue wondering from where is our future industrial-labor leadership coming who can fulfill these things rather than blindly defend them.

WRITING EFFECTIVE GOVERNMENT LETTERS

By James F. Grady and Milton Hall. Washington, D. C. Employee Training Publications, 1939, 109 pp. \$1.50
Reviewed by Book Review Editor

The authors are letter-writing specialists whose positions in several Federal departments are devoted to improving and standardizing Government correspondence. They contend the problems of good letter writing are closely related to the problems of supervision and management. The material is presented as a manual for employees and executives who are now dictating letters as part of their daily work. Briefly, it is an intensive review of the principles of good letter-writing with many examples and drills on the most common faults. Letter writers in Federal, state and municipal agencies will find it a helpful deskbook.

PERSONNEL ADMINISTRATION IN PUBLIC LIBRARIES

By Clara Wells Herbert. Chicago, American Library Association, 1939. Price \$2.25. 190 pp.

Reviewed by Coit Coolidge

Miss Herbert's work applies some of the best principles of the new science of personnel administration to the practical problems of large and medium sized libraries. In the public library field, attempts at scientific personnel management are of relatively recent origin. Miss Herbert's monograph comes, therefore, as a much needed guide to the busy librarian seeking to bring his personnel practice up to date, but lacking the time to make an exhaustive study of the extensive literature now available to the specialist in personnel administration. It can also be recom-

mended to the public personnel administrator seeking to familiarize himself with the particular problems of libraries. For either it is a practical, common-sense guide.

As personnel officer for the Public Library of Washington, D. C., Miss Herbert writes from a broad background of experience. Throughout her book there is everywhere the evidence of good judgment and of a warm, human approach to her subject; it might be called the well tempered philosophy of an individual who is thoroughly familiar with the theoretical science of personnel management, and who also knows and likes people and can approach the staff member from the human point of view as well as the scientific one.

Specific Library Personnel Problems

HER book is at its best in the chapters on "The Chief Librarian As Leader", "Executives, Major and Minor", and the "Selection and Appointment of Staff" where there are excellent hints for the bringing together and development of a highly specialized staff of technical experts. Her humaneness is particularly shown in her suggestions for making allowance for the personal growth of individuals with ability, her ideas for in-service training, and her knowledge of how to bring out the best there is in a highly educated, professional staff by allowing room for individual initiative, growth and development.

In the chapter on "Provision for Personnel Administration" she advances the theory that every large library should have a special staff officer devoted to personnel management, in addition to the usual line officers responsible for departmental supervision. There are other chapters on "Working Conditions", "Courtesy in Library Service", "Promotions", and "Welfare Activities". The last named has useful data on credit unions, group hospitalization plans, and staff associations.

There is also an excellent selected bibliography, including a judicious selection of the most important general works on executive management and public personnel administration, for the librarian who wishes to go farther afield in these subjects; with these is included a selection of articles and books by librarians for librarians, but of particular interest to the public personnel administrator seeking a closer contact with the library point of view.

This well organized, clear, concise introduction to personnel administration for libraries should be mutually helpful to both the personnel specialist and the librarian.

MYSELF: A GUIDE BOOK FOR PERSONALITY STUDY

AND

WHEN WE MEET SOCIALLY

By M'Ledge Moffett. New York; Prentice-Hall, Inc., 1939. 136 and 167 pp. respectively. Price \$1.50 each

Reviewed by Book Review Editor

These two companion volumes are self-rating laboratory manuals for student personnel work in schools and colleges.

The first is a workbook for personality study—a topic we might expect to be laden with technical terms and confusion; but in simple and attractive style the reader "meets himself." We consider the concepts of personality; the background, the physical, the mental and the emotional elements—then finally the "breaking points" in one's personality. We have answered hundreds of questions, traced our family genealogy, blushing recorded some things, gleefully checked others; we have charted, grouped and graphed ourselves pretty thoroughly. This historical, biological and social quizz reveals an interesting inventory of the personal background and potentialities of individuals.

The second is called a guidebook to good form in social conventions and is an excellent manual on good manners in business and social relations. Readers are informed, drilled and tested on proper form in introduction, conversation, formal calls, receptions, banquets, table, travel, reverence and respect, and parliamentary usage.

Teachers and personnel workers should find this material helpful, and readily acceptable, in classes and study groups on social problems and personal development.

THE FAILING STUDENT

By Kenneth L. Heaton and Vivian Weedon. Chicago: University of Chicago Press, 1939. 286 pp. \$2.50

Reviewed by Book Review Editor

Educators who believe the college exists for the intellectually superior students are frequently alarmed at the academic mortality rate among the potentially superior individuals, who are falling behind in the struggle for an education. If only inferior students were left behind there would not be much concern, but studies of failing groups indicate that superior as well as inferior individuals are lost. Others who contend that the college does not exist solely for the superior student, but that it should concern itself with the general education of a large part of the population, are inclined to charge a high percentage of failures to inefficiency and a faulty educational process.

Here is an interesting study in student personnel work focused squarely on the problem of academic failures. Four Michigan colleges, in cooperation with 938 students on probation, set out to determine why students fail, and what can be done to reduce academic failure through improvements in guidance, administration and instruction. They have mined a new vein of guidance material that should prove very helpful to teachers and counselors in high schools and colleges, and principally to those specializing in student personnel work.

Grades as Meters of Gas Absorbed

GRADES, as meters of learning, have been subjected to serious criticism during the past few years and the authors lead us further to question the validity of such absolute measures of student abilities and actual achievements.

The all too frequently used phrase "*ability to do college work*" is something far more complex than a single aptitude or capacity. In the field of educational testing it has long been assumed that the highest score a student makes in a series of tests, measuring ability in a given field, should be considered the most valid indication of his ability in that field. Is it not possible, then, that this same assumption has a significance in relation to grades?

The hopeful trend is toward recognition of individual differences and a better articulation of high school and college. In the future the requirements will be directed toward motivation—to the student's effectiveness in reading, studying and thinking; to his physical and mental health; and to other aspects of his personal and social life. Although the origin of the difficulties remain obscure, the conclusion in the chapter on Sex and Academic Success recognizes that men students are facing a much more difficult problem of adjustment than that faced by young women. We find, too, that the formation of study skills is probably more important to students today than specific subject learning.

Our present system of stenciling failures is a serious implication—if not an indictment—of our present student personnel programs (or lack of them). The authors relieve the college administrators and faculties from criticism and blame, by showing that the problem of failure as it exists today is a new one, and "its solution can be expected in the changing patterns of higher education which are gradually beginning to evolve." To this extent the failing student, who is academically off-side under present rules, is making an intensely interesting and practical contribution.

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It Was a Tough Battle While it Lasted, but We Have Reminded Management that They Still Need Foremen in Their Plants, and if They Want These Foremen to be on Their Side, They Had Better Take a Little More Care of Them."

When Foremen Joined *the* C. I. O.

By IRA B. CROSS, JR.

Graduate School of Business Administration,
Harvard University

C.I.O. NOW DEMANDS RIGHT TO SIT ON BOTH SIDES OF COLLECTIVE BARGAINING." Shortly before Christmas, in full-page advertisements and news releases from Coast to Coast, this headline gave credence to the belief, of quite a few readers, that in Detroit the C.I.O. was engaged in its first real step of taking over American industry. Previously, the automobile workers had made clear their demand that they be given a say in the setting of production standards, and with this newest statement made public, the Sovietization of manufacturing was apparently at hand.

C. I. O. Did Not Want Foremen

CUSTOMARILY, there is always much more to a situation than meets the eye, and this incident provides no exception to the old axiom. In the first place, the Foremen and Supervisors Local Industrial Union No. 918, C.I.O., was not something new. It had been chartered on December 7, 1938. In fact, earlier in 1939 a sister local of this same organization out in La Crosse, Wisconsin, had conducted a strike, and the employees had refused to go through the picket line conducted by their foremen.

In the second place, it was with the greatest difficulty that the initial group of foremen convinced the C.I.O. that they should be granted a charter. At first, the C.I.O. did not want them in their organization, and now after the incident in Detroit which provided such unfavorable publicity, it is doubtful if any of the national officers are pleased that they did issue a charter to this thing which is neither flesh nor fowl.

Thirdly, the telegram which the foremen's union sent to the Chrysler Corporation, and which caused all the trouble, merely requested that the management meet with the duly elected bargaining committee of the foremen, in order to carry out the collective bargaining provisions of the National Labor Relations Act. This message turned out to be a boomerang to the union, and a real bonanza to the Chrysler officials. It gave them gratuitously an unexpected bargaining point, which was most welcome to the company, after many days of seemingly stalemated negotiations.

To answer the questions in the minds of those who are interested in this unique problem of industrial relations, it will be well to determine: (1) Who were the persons behind this organization? and (2) What were the reasons for its formation?

Foremen Thought Employees Needed Union

CLARENCE Bolds, the president of this unorthodox union, is today a foreman employed by the Kelsey-Hayes Company in Detroit. He started there in September of 1929, and in the following April he was given the position he holds at the present time. He has an older brother, an officer in the International Typographical Union, from whom he obtained his first ideas on the subject of unionism. The Typographical Union, incidentally, for years has demanded that foremen employed in printing plants, under contract with the union, must carry cards in their organization.

When the A. F. of L. first undertook to unionize the automobile industry in the early 'thirties, Bolds, despite his foremanship, felt that the employees needed a union, and he lent his efforts to the formation of one of the first organized groups of Detroit auto workers. Later on, when the C.I.O. entered the picture, and the workers voted to hitch their wagon to John L. Lewis's star, foremen were excluded from membership in the union by legislative order. The C.I.O. wanted no part of the foremen, who always have been considered as being aligned with the management, and thus against the interests of the workers.

This left the foremen out on a limb. But when the organized workers began to exert concerted pressure on the automobile manufacturers, the foremen found themselves being moved still farther out on this same limb.

Changed Status of Modern Foreman

DURING all this trouble, two things happened which concern us here. Bolds, who had been interested in unionism from the start, retained personal contact with the men who were pushing the organizational drives. Although he was barred from any formal contact with the union, except as the union representatives in his plant might present grievances to him, he came to know various officers and representatives of the U.A.W., and frequently spent evenings talking with them.

Secondly, the foremen began to find that the growth of organized labor was doing things which affected them, and their position was becoming hardly the job in the plant to be coveted.

The term "foreman" might as well be clarified here because it carries a different connotation as between industries. The "foreman" in a typical automobile plant is not the boss over the employees in his department, in the same sense that one thinks of the foreman of a section gang on a railroad, or in a machine shop. At least he is no longer the boss under the union regime. Formerly, the foreman could hire and fire the men who worked under him. If he wanted to put his relatives to work, and he frequently did, such was his prerogative. If he didn't like the way a man spoke to him on Monday morning, after a hard week-end, he could tell him to "draw his time." This was customary practice throughout the industry before the unions came in. The foreman was the real boss, and in some cases he was a real tyrant.

When, however, committees of hard-boiled representatives of the organized workers began to confront top management with demands to be settled, with the alternative of having "your — plant closed down," it became a matter of expediency to establish personnel departments. It was hoped that by centralizing the taking on and discharging of employees, grievances arising from indiscretion on the part of the foremen would be eliminated.

Furthermore, as competition between manufacturers became more keen, employers found it better to delegate the functions of production planning and scheduling, to special departments which were equipped to perform such work for the entire plant.

Workers Thumb Noses at Him

Thus, a foreman, now shorn of most of his authority and responsibility, found himself in the position where he might be handed an unexplained order from the production planning department, calling for increased output on his line. When he attempted to carry out this order the workers might thumb their noses at him, as they relied on their new-found protection of the union to protect them from "speed-up." If the foreman tried to drive the workers to meet the new schedule, the union would take a grievance up over his head to someone in the management, who possessed the authority to reduce the speed of the line, or "tell them the reason why." These men were no longer foremen; they became straw bosses, pushers, or gang bosses, whatever the name might be. As one man put it, "In each department there is one foreman—in the true sense of the word. Under him are other "foremen" or gang leaders who do no actual productive work, but who as supervisors try to enforce the company's rules."

These "foremen" were smack in the middle, between the pressure of management to meet production schedules, and the pressure of workers to do just as little

as they could get away with. These are the men who joined the C.I.O. Only a few isolated department heads were taken into the organization. The decision on membership for true foremen was left to the discretion of the individual plant divisions of the union.

Employees Cut His Pay

TO ADD injury to insult, as one foreman explained it, "When I took the workers' pay checks around to them, I found that some of them were making more money than I was, and that generally I was getting only five or ten cents an hour more than most of them." In the past, when a company was confronted with a financial squeeze, wages were the first and easiest things to slash. When and how they were returned to the former level was pretty much left up to the employed.

A major objective of unions has been to set a contractual level of wages for a definite period, and relieve the employer of the temptation of reducing them during a pinch. In subsequent tight spots, employers would turn to this former "reserve" only to find that the wage scale of the workers was impregnable, for the life of the union contract. There was still a little flexibility in the organization, however, in the pay checks of foremen and the office force; so a "temporary reduction" of ten per cent or so would be levied on these individuals.

All in all, the foremen were becoming the "Forgotten Men" of industry. They no longer controlled the employment of the men who worked under them; even if they did recommend the discharge of an incompetent worker, the union usually could get him reinstated; they no longer had a say in the setting of production standards; they were the goats when the employer had to conserve his working capital; their hours of work were sometimes long and irregular; they had no assured job protection or seniority. In general, they were getting pretty well kicked around by both sides.

Right before their eyes, however, was being enacted a living example of what organized action could do. Many, not all, of the abuses about which the workers had complained for years had been corrected practically overnight through the magic of joining the C.I.O. Why couldn't they achieve the same ends by following in the footsteps of workers?

Foremen Have Difficulty Getting Union Charter

THIS was the thought that came to Bolds, and his fellow-foremen, late in 1938, as they mused over a ten to fifteen per cent salary cut, and a two-week stretch of work at half-pay. A small group of these men became inspired with the idea of organized strength, and applied for membership in the U.A.W.-C.I.O. The union would have nothing to do with them. They tried to get into the Architects and Engineers union, but with the same result. Finally, their efforts led them to Adolph

Germer, then C.I.O. regional director for the State of Michigan, who was interested in their story, and promised to do something for them if he could.

John Brophy, director of the national C.I.O.'s organizational department, at first vigorously denied Germer's application for a charter for this group of foremen. Why should foremen, the agents of the employer—the perennial targets of abuse in almost every organizing campaign—be permitted to enter the ranks of organized labor? This looked like another ruse of the employers to undermine the union. Germer's sincerity and persistence finally bore fruit, however, and the C.I.O. officially recognized this group on the seventh of December, 1938. Listed as charter members are ten men—all foremen at the Kelsey-Hayes plant.

The primary obstacle of getting a charter overcome, the next job was to build the membership of the organization. Signing up the balance of the foremen at Kelsey-Hayes was easy. In two weeks and three days the membership in this company was practically 100 per cent. Almost immediately the men discovered that in group action there lies strength. The company rescinded their wage cut, and dropped the idea of shifting the foremen from salaried positions to hourly rated jobs.

The U.A.W., however, was still not quite certain of the sincerity of purpose of this new organization. In order to prove that their intentions were the best, the representatives of the foremen's union took along the employees' grievance committee each time they went in to present complaints to the management. This practice continued for some time, and it was not until the Fall that the foremen's representatives met alone with the company officials to discuss grievances.

Membership in other Detroit plants grew very slowly at first. Not that conditions were dissimilar in other auto factories—foremen simply are more conservative than production employees, and they weren't certain whether this new foremen's union was the answer to their problems. Working five to ten hours a day after they had clocked out of the plant, Bolds and his colleagues canvassed the homes of foremen of other companies, and addressed groups of them. Interest in the union grew as these other men listened to the persuasive description of the possibilities, and visualized what organized strength might do for them in their own plants.

Did Workers Force Foremen into Union?

DURING this organizing campaign, employers complained that their workers were forcing foremen to become members of the new union. In one company, subtle pressure was brought to bear on the foremen, when the employees refused to converse with them unless they were members of the C.I.O. Later, Chrysler publicly accused the U.A.W.-C.I.O., and the foremen's union of "working together." Although the head men of both groups staunchly maintain that there was no official sanction of assistance on the part of the U.A.W., there doubtlessly

were many instances of covert and informal aid on the part of the local union men, in getting the foremen "interested" in this organization.

Foremen Get Signed Agreement

FINALLY, the foremen at the Universal Cooler Corporation were able to obtain a signed agreement, which stated that the company recognized the union "as the bargaining agency for its supervisory employees not eligible to become members of the U.A.W." In this contract, which was negotiated as a supplement to the U.A.W. agreement covering the productive employees, the corporation further agreed to a procedure for representation and grievance adjustment, seniority protection of a sort, a two weeks vacation with pay, and—this is the clause the men point to: "It is mutually agreed and understood that the Universal Cooler Corporation will not demand or request any act or action whatever of its supervisory employees which would tend to strain or break the existing harmonious and fraternal relationship between the United Foremen & Supervisors L.I.U., #918, U.C.D., and the I.U.U.A.W.A., Local #174, Universal Cooler Division." Paraphrased in the words of one of the foremen, this simply means, "No longer are we to be forced to treat employees like heels."

This contract was dated on the 20th day of June, 1939. It wasn't long before word of this signed agreement, and of the gains achieved by the newly-organized foremen in other plants, began to get around the grapevine in Detroit. Before long, foremen throughout the city were inquiring as to how they might obtain membership in the union.

Building the Organization

THE boys with the charter membership, however, went about building their organization on a very business-like basis. They refused to take in individual foremen. An entire plant had to come into the union as a division, before individual memberships would be accepted. That is, if enough foremen at, say, the Dodge Truck plant wished to sign membership cards, so that the executive board of the union felt that a separate division should be established for that plant, a subsidiary division would be formed. The job of further organization and administration of the affairs of this group would then be handled by representatives elected among the foremen in that plant. Eventually, eleven divisions, covering eleven plants in Detroit, were set up, and over 900 foremen were listed as regular dues paying members.

They rented an office where they might hold meetings and keep their records. This office, of course, had the title, "Foremen & Supervisors Local Industrial Union" painted on the front windows. The young lady, who worked in the office as secretary for the union, stated that frequently passers-by would stop, read the sign, and ask "Foremen and supervisors? Why do they need a union?" Truly, it was a little difficult to understand.

Foremen Picket Plant

BUT in La Crosse, Wisconsin, the foremen at the plant of the Electric Auto Lite Company heard of this foremen's union in Detroit, but when they began discussing the possibilities of doing something similar for themselves, they were firmly told by management to forget about the idea. It seems that these men preferred a little more direct type of action to gain their ends. So, one day instead of going into the plant to work, they posted themselves at the company's gates, and informed the incoming workers that they, the foremen, members of Local Industrial Union #984 of the C.I.O., were on strike. This must have been quite a shock, and a distinct surprise, to most of the employees. Here were their bosses with a picket line of their own. Regardless of their first reaction, however, their decision was not to cross the picket line, so both straw bosses and workers joined in a 'work holiday.'

This group in La Crosse was unable to obtain official certification from the National Labor Relations Board, as a bona fide labor union. Their strike, and subsequent presentation of demands, however, rewarded them with an informal letter of agreement which contained, among other things of importance to the foremen, wage increases of substantial size.

Returning to Detroit in the middle of November we find the foremen's union, which still has attracted practically no public attention, just about to write the opening sentence in what may be the last chapter of their history as a labor organization. By this time, the Chrysler employees were getting set to break the endurance record previously set for strikes in the auto industry, by the General Motors' workers in 1937. Although a turkey-less Thanksgiving was in the offing, the picket lines were holding fast. During this time, foremen in the Dodge Truck plant had been doing various jobs around the plant, and they had been coming into the shop through the union picket line, although 48 of these foremen were supposed to be members of the foremen's union.

Management's grapevine had picked up the word that their foremen were joining the C.I.O., and the Chrysler people thought that it was time to find out how their foremen stood on this issue. Accordingly, one day, about the 16th of November, the management of the Dodge Truck plant quizzed foremen as to whether they were affiliated with this new union. It is understood that some of these foremen were pretty outspoken.

Foremen Are Laid Off

ONE of them is reputed to have said that his loyalty was a commercial product for sale, and that if the company wanted it, they could buy it—by improving the terms of his employment. Most of the men were not in the least afraid of the cross-examination, as a group of workers might have been, and readily admitted their affiliation with the C.I.O. According to the charges filed with the Labor Board, at the end of the working day, 47 of the 58 foremen in the plant were told

that they were being laid off indefinitely, and were handed their pay checks. The foremen's union claims to have had 49 members in this plant. 47 were laid off. Whether their union affiliation had anything to do with their being furloughed is a matter which will never be adequately proved. Nevertheless, the impression obtained by the foremen involved was unanimously to this effect.

Position Taken by Labor Board

HERE at last was a chance to test the strength of the union. Previously, a few individual cases of discharges had been successfully contested. This case, however, involved almost the entire supervisory force of one unit in the Chrysler Company. On the 18th of November, a delegation from the foremen's union called at the Detroit office of the National Labor Relations Board. They told the Board representative that they wanted to file charges of an unfair labor practice against the Chrysler Company.

The Labor Board representative told these furloughed foremen, that it would first be necessary for the company to refuse to meet with them as a bargaining group, before proceeding with the filing of the charges. It was Saturday morning, and the company officials could not be contacted by telephone. Therefore, a telegram was sent to the company asking that the management meet with the foremen's committee for purposes of bargaining. Next day, the foremen's union made the front pages of newspapers throughout the country. In subsequent full-page advertisements, the Chrysler Company accused the C.I.O. of demanding the right to sit on both sides of collective bargaining. Little had the committee of foremen from the Dodge Truck plant realized the trouble that their telegram—a matter of formality in the procedure of the Labor Board—would cause. Nor did they anticipate what this would finally mean to their entire organization.

A Break for Chrysler

THE U.A.W. union officials were taken by surprise when the Chrysler people waved this telegram in their faces, as bargaining on the strike issue was resumed on Monday. Although they knew of the foremen union's existence, they had no warning that the group might attempt to meet with the company at this most inopportune time. For a while the conference was in a turmoil, with the company men using this incident to get the upper hand. Finally, with the company's refusal to go further with negotiations, until the foremen's charge before the Board had been permanently withdrawn, the C.I.O. agreed to disband the foremen's organization, in the plants of the Chrysler Company, and cease all organizing activity in connection with their foremen during the life of the current contract.

The managements of other automobile companies in Detroit followed Chrysler's position, and the foremen found employers telling them "nothing doing," until

the Labor Board handed down its decision on the cases which were pending. Faced with this impasse, the organization witnessed the substantiation of a prediction made by C.I.O. officials. When the founders of the union first sought their charter they were told: "Foremen cannot be organized because they aren't 'organization-conscious,' to the extent that workers are. When they are confronted with an obstacle they will drop out of the union rather than stick by it." A marked falling off in dues payments in each plant, after managements stood pat, and refused to meet with foremen's committees, bore out this original view.

Labor Board Unlikely to Recognize Foremen

THE Labor Board has not yet handed down its decision on the four cases which involve the status of the foremen's union. It seems unlikely, however, that they will consider this group as a labor organization under the terms of the Act. "The term 'employer' includes any person acting in the interest of an employer, directly or indirectly." These are the words of the Act. To be sure, this constitutes somewhat of a borderline case, but despite the loss of their former authority as departmental bosses, it is difficult to see how, in the face of the Act's definition of terms, foremen can be classed as anything but agents of an employer.

The leaders of the foremen's union stoically regard their present predicament with this attitude: "We still have a fighting chance, but if the Board's decision goes against us we will be forced to liquidate our organization. Should this be our fate, we at least have the consolation of having served a worthwhile purpose, in bringing foremen out of the shadows into which they have been forced during the past few years. It was a tough battle while it lasted, but we have reminded management that they still have foremen on their staff, and if they want these foremen to be on their side, in the future, they had better take a little better care of them."

There has been some talk of these foremen setting up an independent organization, or affiliating with the A. F. of L. This seems a little unlikely, because for purposes of effective collective bargaining, the foremen's union really derived its strength from the C.I.O. through its close association with the rank and file of the United Automobile Workers union. As an independent group it could be little more than a fraternal organization.

Foremen Not Considered Union-minded

WHILE the Detroit situation was still in the headlines, an official of the Steel Workers' Organizing Committee in Pittsburgh received a telephone call from one of the large steel companies. "We have just heard a rumor that our foremen are joining the C.I.O." "Well, why don't you do something about it?" barked the S.W.O.C. man. "If you'd treat your foremen half decently, they would have no reason for joining a union." After assuring the voice on the other end of the line that S.W.O.C. was kept busy enough with 550,000 steel workers, without

bothering about a handful of foremen who aren't union-minded anyway, he hung up. Shortly thereafter, this company inaugurated a special series of conferences to find out what the foremen had on their minds, and the threat of their joining the C.I.O. dissolved into thin air.

At first sight, it would seem that the desire of foremen to become affiliated with labor unions constitutes a rather bad reflection on the management of their companies. The remark of one foreman sounded almost plaintive: "If we had only been treated by the employers as part of management, there would never have been a foremen's union." But up to now, management has been kept busy dealing with various employees' unions, and the plight of foremen has, in some companies, been overlooked. Now, however, management groups are concerning themselves more with discussions of this currently important topic.

The Foremen and Supervisors Local Industrial Union may shortly pass out of the picture, but it will have served a most worthwhile purpose if it has brought to the attention of employers throughout the country, the previously forgotten man—the foreman.

We Usually Think of Employee Grievances as Being Generated by Unfairness of Foremen, Insufficient Pay or Other Working Conditions. But They May be Generated by the Personnel Department, or One of Its Divisions.

Survey of Hiring Methods

DIGEST OF REPORT BY PERSONNEL GROUP

National Retail Dry Goods Association,
New York, N. Y.

A RECENT survey, by the Personnel Group of the National Retail Dry Goods Association, showed that 54% of employees, hired by a number of representative department stores, *had some grievance against the company by the time they were hired.* No detailed figures are available to show the reaction to companies of those who failed to secure jobs. But if over half those who did secure jobs disliked the company from the start, because of the treatment they received at the hands of the employment department, it would be a fair estimate that an equal percentage, who did not get jobs, have carried away unfavorable impressions of the companies.

Retailers Are Improving Employment Practices

RETAILERS are much concerned about this public relations aspect of their personnel programs and methods, as well as its effect on employee morale and efficiency. So that, at the present time many department stores are considering the advisability of reorganizing their employment departments, and are subjecting them to the same careful scrutiny as they have applied to other parts of their organizations.

In view of the generally disturbed labor situation, and the frequent criticisms that are made of industrial policies and practices, other industries and companies also might do well to study their employment methods, to make sure that all factors tending to create an unfavorable impression on those hired, or not hired, are eliminated.

Main N. R. D. G. A. Findings

THE operation of an employment department has a very vital bearing on the efficiency and progress of a company as a whole. The success of the company's program of public relations, the application of its policies of merchandising and sales promotion, and the efficacy of all its operations depend almost completely upon the caliber of the people chosen by the employment department to fill the diversified jobs. Furthermore, job attitude, which necessarily determines the character of all employer-employee relations, is vastly influenced by the employment department experience of the new worker.

This last fact was clearly shown in a survey recently undertaken by the Personnel Group, "Employee Attitude as Affected by Initial Personnel Procedure." In that study employment department problems were approached from the angle of the employee, and the psychological difficulties inherent in the employment experience were considered. The findings—among others that 54% of all the employees questioned had some grievance against the company by the time they were hired—made it obvious that a survey of the problem from the company's viewpoint, and a consideration of the practical aspects of the employment situation were very much needed.

Employment department operation has been allowed to lag behind the operation of other departments in many companies. This is accounted for to some extent by the fact that it does not lend itself to the same type of control as other divisions. The difference between successful and unsuccessful employment department operation is qualitative rather than quantitative.

Good Will Most Important

THE number of applicants handled in a given space of time is less significant than the skill with which the best material is uncovered from the mass of applicants, the suitability of each individual selected for the job in which he is placed, the type of job attitude fostered by the employment experience, and the degree of good will retained by those who are not hired.

At the present time many department stores are considering the advisability of reorganizing their employment departments, and are subjecting them to the same careful scientific scrutiny that has been applied at one time or another to other divisions. In doing so they have become aware that few standards, and little standardization, now exist in employment department operation. They feel the need to exchange experience, and to adopt some mutually acceptable formulae of organization and of action.

In response to this need, and in the belief that the employment function is a critical factor in the establishment of a sound personnel policy and program, the Personnel Group has undertaken the present survey. The procedure followed has

been to study the employment department operations of 53 representative companies. They were divided into four groups according to the number of their employees as follows:

Group I.....	Under 750 employees
Group II.....	750-1500 employees
Group III.....	1500-3000 employees
Group IV.....	Over 3000 employees

Employment directors, or personnel managers, of all cooperating companies, filled out comprehensive questionnaires on the structure, functions and methods of their departments, and submitted copies of forms used in connection with various procedures. Their replies have been tabulated under the headings: employment department organization, selection, employment maintenance and termination.

Employment Department Staff

THE typical employment department, in the companies with under 750 employees included in this study, is staffed by a single executive and one clerk. In the 750-1000 class one executive and three clerks is typical. However, departments were found in this group with as many as three executives and four clerks. In companies having 1500 to 3000 employees, the most frequently found number of both executives and non-executive employees is three, with the maximum being six executives and ten non-executives. In the companies with over 3000 employees the typical set-up was three executives and six junior employees. The number of executives ran as high as ten in one company.

In the group with less than 750 employees, there were no cases in which additional executives were assigned to the employment department during peak periods. However, in several an extra clerical is taken on for the Christmas hiring season, or whenever the department is particularly busy. In the group having 750-1500 employees, executive additions are infrequent, and involve one person at the most. However, two clericals do supplement the normal force during times of pressure in several companies in this group. In companies with from 1500 to 3000 employees, two executives are sometimes added, and non-executive additions run as high as five, although three is more typical. The most frequent additions occur in the group with more than 3000 employees. The typical extra force in that group is two executives and five non-executives, the maximum being eleven executives and eleven non-executives.

Of 53 companies questioned, 37 had clearly formulated criteria for selecting employment department workers. In some the chief emphasis is placed on education, technical training, and experience, while in others these considerations are secondary to character and personality requirements. In almost all cases clericals must have had at least high school education. Graduation from college is usually demanded of employment executives.

Hiring

IN GENERAL the employment department has complete authority in the selection of non-executive employees. However, in five of the reporting companies the employment office has only partial authority where non-selling rank and file employees are concerned. In some of these cases the employment department may undertake preliminary elimination, and may recommend applicants to the non-selling department concerned, the final decision resting with the head of that department. In other cases, the authority of the employment department has been termed "partial" because no authority is exercised over the hiring of some classes of non-selling employees, while complete authority is exercised over other groups.

Table I shows the extent of responsibility and authority for selection of executives, selling non-executives and non-selling non-executives.

TABLE I
Employment Department Responsibilities

EMPLOYMENT DEPARTMENT RESPONSIBILITY IN SELECTION OF	GROUP I USLR 1-25	GROUP II USLR 26-40	GROUP III Executives	GROUP IV USLR 41-60	TOTAL	TOTAL PERCENT
Executives						
None	4	5	7	4	20	38
Partial	8	12	8	4	32	60
Full	—	—	—	1	1	2
Selling non-executives						
None	—	—	—	—	—	0
Partial	—	—	—	—	—	0
Full	12	17	15	9	53	100
Non-selling non-executives						
None	—	—	—	—	—	0
Partial	1	2	1	1	5	9
Full	14	15	14	8	48	91

The reason most frequently advanced for relieving the employment department of the responsibility of hiring non-selling employees is that the department is not able to judge the specific requirements necessary for very specialized or technical jobs. However, this argument implies a misunderstanding of the objectives of intelligent employment work. With the possible exception of a few highly specialized positions, all jobs and their requirements should be thoroughly familiar to the employment manager.

What Employment Managers Should Know

IT is his business to know, and to analyze the entire personnel structure of the company, otherwise his routine of interviewing and selection procedure becomes meaningless, and his place can easily be taken by any clerical. At the present time the development of testing techniques makes it possible for the employment manager

to judge the suitability of applicants for various types of work and to determine their proficiency in a given skill. Ordinarily he can evaluate the aptitude and the performance of the candidate for the job more accurately than a department head, whose usual standards of judgment are the applicant's past experience, and possibly a subjective appraisal of a sample of his work. Furthermore, the employment manager, as an experienced personnel worker, is in a position to judge other factors which will make for satisfactory job performance which the untrained person is very likely to ignore.

This is particularly true if the company observes any program of promotion from within, or interdepartmental transfer to stabilize employment. In that case there are many considerations influencing the acceptance of an applicant which are at least as important as his skill for the immediate job, and which the non-selling department head is not in a position to judge.

In the case of the selection of executives there is less uniformity of practice, although as a rule the authority exercised by the employment department in this respect is fairly restricted. There is no discernable agreement as to where the executive line is drawn. In some companies it begins with employees who have any supervisory duties; in others it is determined by the stipulation of a union contract, which defines executives as all those earning above a given weekly wage; in still others it starts with buyers and department heads; while in some only those who are to hold key positions are considered executives for employment purposes.

Impressions from Physical Facilities

THE physical facilities of the employment department have a direct bearing on the effectiveness of its operations. They determine the efficiency with which applicants can be routed through the office, the amount of time involved in the performance of necessary routine, and have a strong influence on the first impression which new employees form of the company.

From the schematic drawings of employment departments and comments submitted by cooperating companies in this survey, criteria of employment office appearance and layout are recognized as follows:

1. Accessibility from outside the building.
2. Closeness to elevators.
3. Closeness to files and records.
4. Closeness to training department.
5. Sufficient space for applicants to wait comfortably.
6. Facilities for filling out applications.
7. Privacy for interviews.
8. Entrances and exits arranged so that applicants need not pass before those still waiting after being interviewed.
9. Pleasantness of decorations.

These Are Being Improved

UNFORTUNATELY, not all employment offices measure up well against these criteria. The first four points are fairly generally observed, but others are quite frequently neglected. Several people, who filled out questionnaires, severely criticized the drab appearance and unpleasant atmosphere of their own employment offices, while others said their offices were poorly laid out, with space and privacy at a minimum. The fact, that several companies reported their employment offices to be in the process of moving or revamping, may indicate that there is a trend on foot to improve the physical surroundings provided for the employment function generally.

In all groups the sources for obtaining new employees most frequently used are: (1) schools, (2) free agencies, (3) paid agencies, (4) classified advertising, and (5) recommendations of present employees. Table II shows the extent to which each of these sources is regularly used.

The fact that schools are reported to be used as a source of nearly one half of all new employees is significant. It suggests that employers and school officials may both enjoy real advantages through cooperation. Many schools now exert serious efforts to prepare their students for retail jobs. Merchants should extend every possible cooperation in the school program. The results will be more extensive employment of school graduates, and a more reliable source of good workers.

The increased use of free employment agencies is undoubtedly partially due to the improvement in the services of these agencies which has occurred as a result of recent legislation.

Interdepartmental transfers provide a direct source of labor for departments receiving workers, and a means of employment stabilization for the company as a whole. All companies transfer employees to a certain extent. Those where definite interdepartmental transfer procedures operate, avoid unnecessary hiring or dismissals. Forty of the fifty-three companies investigated replied to the query about transfers. The following number in each size group regularly practice interdepartmental transfers to stabilize employment:

Group I	7
Group II	11
Group III.....	13
Group IV	-
Total.....	40

Selection

It is quite obvious that all companies use interviews in the selection of new employees. The extent to which final selection depends upon the interview, the interviewing method, and the number of interviews employed, however, varies in different companies.

A large number of companies find it desirable to use two interviews; a preliminary one to eliminate obviously unsuited applicants, and a final one to consider potential applicants more thoroughly. This is evidenced by the fact that 49 of the 53 companies reporting, employ at least two interviews. Four of the forty-nine, regularly use three or more interviews in selection. All four of these companies were, of course, in the two upper size groups.

Tests Used by Many Companies

TESTING, as a means of improving the selection process, is being given more consideration generally in employment departments. Fourteen, or more than one fourth of the companies studied, reported the use of tests either in employing all people, or in selection for specific jobs. Two in the small size group, and four in each of the others, reported the regular use of tests.

TABLE II
Number of Applicants for Jobs

SOURCES	NUMBER OF SOURCES IN EACH GROUP USING EACH SOURCE					Percent
	Group I	Group II	Group III	Group IV	Total	
Schools	12	12	11	9	43	44
Trade associations	7	7	9	5	28	27
Public authorities	2	6	5	2	15	14
Newspapers and ads	4	2	6	1	12	11
Recommendations of employees	1	—	4	1	6	5

Physical tests, or examinations are still not used extensively as a requirement of employment. Only eleven of the companies make them compulsory for all new employees. None of the companies employing less than 750 workers use a physical examination, except for those employees as required by law, or by regulations of an employee benefit association.

Physical examinations as a prerequisite of employment is a selection procedure which will undoubtedly be adopted eventually by most companies. Many of the wastes of replacement, turnover and inefficiency could be avoided if only applicants in good health are accepted.

Most companies have found it profitable to investigate conscientiously the references submitted by new employees. The usual procedure is to investigate from three to five references, using personal ones when business references are lacking or are too few.

Salary Rates and Control

THE responsibility for setting salary rates; recording time; preparation and distribution of the payroll, and general payroll control are not characteristically duties of the employment department. For example, only seven of the companies reported their employment departments responsible for salary rates, and only three

were responsible for distribution of salaries to employees. This does not necessarily mean that these jobs are not duties of the personnel department. In many, they are direct responsibilities of the personnel director, and in others they are duties of the payroll office, which may report to the personnel director.

But this study shows that the personnel, or employment department, is most usually responsible for payroll control. About one half of the companies studied place this responsibility in this department.

45 of the 53 reporting companies maintain productivity records in their employment departments. Fewer large than small companies require their employment departments to maintain productivity records. In many larger companies these records are kept in the controller's or manager's office, or in the personnel records office, which is a separate division of the personnel department.

It is significant that of the 53 companies contributing to the study, 43 have regular periodic personnel reviews. Such reviews unquestionably provide the best method of obtaining complete and objective evaluations of workers. All progressive companies have found this type of employee follow-up indispensable in their personnel programs.

Where the employment manager heads the personnel department he, obviously, conducts personnel reviews. This is true in smaller companies. Where the employment manager heads only one of the divisions in the personnel department he probably would occupy only a participating role. This is the situation that exists in many larger companies.

Employment Office Forms

A study of the forms used in employment offices provides an excellent means of gaining an insight into employment procedures. In most instances, each step in the employment, and maintenance processes, is accompanied by some type of form which properly records the step. As a rule, each form is coordinated with the whole record-keeping process.

Obviously, the nature and variety of forms used depend largely upon the size of the company, and the degree of specialization practiced. Five of the most important employment forms, employee requisitions, applications, production records, job history or service rating forms, and termination forms are also analyzed, and discussed in detail.

The above is a digest of "Employment Department Organization and Procedure," by the Personnel Group, National Retail Dry Goods Association, 101 West 31st Street, New York, N. Y. (Price to non-members of the Association, \$2.00.)

Employment managers in all industries are likely to find this study well worth their perusal, so that they may compare their practices with those described, and obtain some new ideas as to how they might possibly be improved. The second section of the report presents facsimiles of forms used in organizations of different sizes.

The Psychiatrist Should Scan the Horizon of Science for New Tools by Which He May Open up New and Fruitful Avenues of Approach to His Problems, and Thus Develop Better and More Useful Methods of Cure and Prevention.

Personnel Work *in* State Hospitals

BY PHILIP WORCHEL

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ATTENDANTS in hospitals, particularly those for the mentally ill, can be of the greatest aid to physicians in reporting the progress of patients, and in aiding in the therapeutic process designed by the doctors. They come into contact with patients more often than any other members of the personnel of these institutions.

The Care of Half Million Mentally Sick

THE use of personnel methods in their selection, training and promotion is therefore highly important. It is particularly so when we remember that more than half the hospital beds in the United States are occupied by mentally ill patients. There are more than half a million mentally sick people in the country, and the number is steadily rising.

Doctors and psychiatrists, who direct and administer these institutions, are required to be qualified according to standards set up by their professional associations. But less often is the need recognized of having attendants and other hospital personnel carefully selected, properly trained and maintained at the highest possible degree of effective service.

This paper indicates the important personnel problem of attendants in hospitals for the care of the mentally ill. It presents statistical data showing the results of haphazard and unscientific personnel selection. Suggestions are offered for employment based on objective research standards. Programs of training new employees and maintaining maximum personnel efficiency are discussed. It is hoped that,

in the future, psychiatry will devote more attention to these interpersonal employee-patient relationships.

Selecting Attendants

THE selection of employees involves two tasks. First we must decide the traits and abilities that are essential and desirable for the efficient performance of duties. Then we must set up procedures and techniques which will indicate the presence or absence of such factors.

In order to decide the traits or abilities that are necessary, a job analysis of each position should be undertaken. Following is a job analysis of the position of white female attendant in a mental hospital. This was secured by actually observing attendants at work, and by interviewing ward supervisors, attendants, patients, and staff members. In addition, an investigation was made of the attendants who were considered efficient, and of those who were discharged.

TYPICAL JOB ANALYSIS

I. Position: Attendant

A. Department: White Female

B. Number of Employees: 51 attendants (day), 26 attendants (night), 6 attendants (isolation ward).

C. Duties: The attendant during the first year of her duties sweeps the wards, mops, dusts, and at all times sees that the ward is clean, tidy, well-ventilated, and properly lighted. She makes beds, collects soiled laundry and deposits it in proper receptacles, receives clean laundry, and makes necessary replacements.

Later she ministers to all needs of patients, so that they are always comfortable. She helps patients dress who cannot or will not, bathes the untidy, brushes teeth or supervises brushing of teeth, combs hair, cleans finger nails, and gives such personal physical attention as is necessary.

At all times the attendant watches the patients so that they will not hurt themselves or hurt others (suicidal, epileptic seizures, fights, etc.); sees that they do not escape; counts patients when they go to meals, when they come back, and to and fro from yard. She escorts patients to various parts of the hospital, classes, movies, dances, doctors, laboratory; and takes them back to the wards.

The attendant talks to the patients, answers their questions, makes note of requests, and reports to the supervisor and doctor on the patient's condition.

II. Personal Requirements:

A. Physical:

1. Age limits: 18-30 years.

2. Sex: Female.

3. Weight limits: 120 lbs.-150 lbs.

4. Height limits: 5'2"-5'10".

5. General Condition: Free from any defect which would impair performance of duties, and free from such diseases which would entail a liability to hospital or danger to others.

B. Mental

1. Intelligence: Normal Superior.
 2. Education: 8th grade-12th grade.
 3. Special Abilities: Ability to follow directions.
 4. Temperament: Generally cheerful, emotionally stable, patient in dealing with people, and foresight in predicting the probable effect of various ward situations on patient's behavior.
- C. Physiological: Attendant must have at least average muscular strength, as it will be necessary at times to restrain patients from hurting themselves or others; must be in excellent health as hours are long and the work is arduous.

III. Working Conditions:

- A. Pay or Salary:—per month for the first two months;—per month for the next four months;—per month for the next six months;—per month after one year; including room, meals, laundry, medical attention, and uniforms.
- B. Hours: 12 hours per day from 7 to 7 with one afternoon per week and every other Sunday after 10:00 a.m. off (night attendant has 2 full nights off a month).
- C. Promotions: Automatic pay increases and promotion to assistant charge attendant.
- D. Tenure: Attendant is discharged for any practice detrimental to the welfare of the patient or the hospital—misconduct, mistreating patients, neglect of duties, defacing property, etc.
- E. Surroundings: Clean, well-ventilated, and lighted; danger of being hurt by patients; having to hear screaming and cursing frequently.
- F. Supply of labor: Applications from all over the state.

IV. Promotional Chart

(day personnel)

- 1 Supervisor
- 2 Assistant Supervisors
- 18 Charge Attendants..... 9 years
- 18 Assistant Charge Attendants..... 2½ years
- 19 Attendants..... 6 months

The time at the right refers to the average length of time that an employee remains in that position before promotion. This time depends of course on vacancies, additions, and on the ability of the employee.

Our standards determined, our next task is to set up criteria for indicating whether prospective employees have the necessary qualifications. As much as possible, objective standards should be utilized. A physical examination by the physician will reveal the presence of undesirable physical factors. An intelligence examination will give the approximate intellectual level. School records will indicate educational attainments. Personal interviews, recommendations, and observation of the employee during the probationary period will aid in the evaluation of personality traits.

Age and Intelligence Standards

THE careful selection of the attendant, based on the standards outlined above, cannot be stressed too much. Haphazard employment as a result of personal

PERSONNEL WORK IN STATE HOSPITALS

TABLE I

Chronological Ages of 69 White Female Attendants

AGE	NUMBER OF ATTENDANTS
50	2
45	1
40	1
35	1
30	4
25	15
20	34
15	15
Total	67

Range, 17 years-53 years, median, 22.5 years, average, 24.1 years.

TABLE II

Mental Ages of 69 White Female Attendants

Otis self administering tests of mental ability, intermediate examination

MENTAL AGE	NUMBER OF ATTENDANTS
Above 18	2
18	2
17	1
16	2
15	2
14	3
13	2
12	3
11	1
10	3
9	6
8	1
Below 8	1
Total	49

Median, 13.4 years.

TABLE III

Educational Status of 70 White Female Attendants

GRADE COMPLETED	NUMBER OF ATTENDANTS
Above 12	1
12	23
11	4
10	11
9	10
8	12
7	5
6	2
5	2
Total	70

Range, from 5th grade to 1 year college; median grade, 10.4 grades; average, 10.3 grades.

impressions, and inadequate information, are costly from the standpoint of labor turnover, and are also a threat to the efficiency of therapeutic programs. The author made a study of the effects of such methods in one hospital where selection was limited and usually based on personal impressions. Table I gives the chronological ages of 67 white female attendants. An analysis of these figures suggests the consideration of retirement age. Table II indicates the mental ages of 69 white female attendants, as secured by the Otis Self Administering Tests of Mental Ability, Intermediate Examination. Forty of these attendants were rated below the mental age of 14 years, and 16 of these could be considered definitely mentally deficient.

If we view attendants as merely maids and automatons then we do not have to be concerned with mental ages. But is it not obvious that little success can be hoped for in any psychiatric program depending on such personnel?

The grades completed for each of 70 white female attendants are given in Table III. As we lacked school records, we secured the educational levels from the attendants themselves.

These tables need no further explanation or comment. Of course, it may be that salaries, living conditions, dearth of applications, etc. resulted in the employment of some of these individuals, who would not otherwise have been accepted. State hospitals are not immune from the economic law of supply and demand, as far as employment is concerned, and thus they must compete with other agencies for the highest type employee.

Training Attendants

HAVING selected attendants, the hospital is obligated to provide formal instruction. It is not enough for the attendants to be merely watchmen, or to do only the necessary clean-up services. For attendants to be a positive factor in the resocialization process, they should be given some understanding of the behavior of patients and the nature of their illnesses. They should be taught what to look for, what to report, and what to do. Thus, not only would they become a more vital part of the hospital program, but knowledge would add to their interest and appreciation. In most hospitals the instruction has been informal, and usually in the nature of "do" and "don't."

Recently, it was decided to inaugurate a formal course of instruction for attendants at the Florida State Hospital. Suggestions were secured from other hospitals. The cooperation of the staff and ward supervisors was assured. The following is a schedule of the course of instruction established for attendants at this Hospital.

COURSE OF INSTRUCTION FOR ATTENDANTS

- I. Introductory Discussion..... Superintendent
- II. Physical Symptoms (Recognition of illness)..... Chief Physician
- III. Accidents and Emergencies Physician
- IV. Dental Health for the Mentally Ill..... Dental Surgeon
- V. Nursing Care of the Mentally Ill.... Director of School of Nursing

PERSONNEL WORK IN STATE HOSPITALS

VI. Personal Hygiene.....	Director of School of Nursing
VII. Temperature, Pulse, Respiration.....	Director of School of Nursing
VIII. Baths, Care of Nails, Hair, etc.....	Director of School of Nursing
IX. Care of Beds and Bedmaking.....	Director of School of Nursing
X. Hospital Housekeeping.....	Graduate Nurse
XI. Care and Administration of Medicines.....	Graduate Nurse
XII. Occupation and Amusement.....	Occupational Therapist
XIII. Understanding the patient.....	Psychologist
XIV. Mental Hygiene.....	Psychologist
XV. Mental Disorders.....	Psychiatrist
XVI. Mental Disorders.....	Psychiatrist
XVII. Mental Disorders.....	Psychiatrist
XVIII. Mental Disorders.....	Psychiatrist
XIX. Supervision of patients on detail.....	Clinical Director
XX. Fire Prevention and Use of Fire Extinguishers.....	Fire Chief
XXI. Examination.....	

Time: Tuesdays and Fridays, 10:00-11:00 a.m.

Notes: Lectures 1A: *Attendant and His Work*; 1B: *Rules and Regulations* will be added for new attendants.

Problems in Organizing Course

AT FIRST, most everyone was pessimistic concerning the outcome of such a course. It was contended that the employees would be indifferent, if not antagonistic, and that they lacked the educational and intellectual background to benefit from it. Besides we faced the handicap of a lack of books, and the fact that many of our attendants, who had been employed for some time, had been away from school for many years. We also faced the problem of deciding the hours most convenient to all, and whether the time spent in class should be the employee's own time or the hospital's time. In spite of the pessimism and problems, we knew we were confronted with another actuality, that is, that these attendants did influence the patients and the program of therapy. We had to do our best in order to make this influence beneficial.

We arranged the time for class attendance convenient to all concerned. The first class consisted of 40 attendants, who had been employed in the hospital for many years, and who were in charge positions in the various wards. As they were already employed, and as we couldn't take them all off the wards at the same time, some of them had to attend the class on their own time. The lecturers were asked to submit printed copies of their lectures so that, at the completion of the course, a mimeographed outline of these lectures would be used as a text. When the final examination was given, the attendants were asked to submit their opinions on the value of the course, and also suggestions for changes they thought valuable.

Results Very Encouraging

THE results were more encouraging than anyone had realized. The students were very enthusiastic, and everyone passed the final examination with a mark above 75%. At the completion of the course certificates were awarded to each student at

an appropriate ceremony. It was the unanimous opinion that the course should continue, and embrace all old and new employees. The superintendent of the hospital stated that the progress reports submitted by these attendants were better than before the course, in the completeness of their reports, and in the language employed. The students expressed their interest and appreciation. Typical of some of their opinions were:

"This course has been a benefit to me in many different ways. First, it has broadened my mind as to the mental and physical illness of the patients in this institution. It has helped me to recognize illness of different kinds. In case of emergencies I now know how to give first aid treatment. In case of fire, I know what kind of extinguishers to use and how to use them, otherwise I would not have known. I certainly feel that this course has helped me to be a better attendant than I have been in the past, and I certainly do appreciate what you all did to help me be a better attendant."

"Yes it was beneficial to me. Much that was taught in class had already been taught to us by our supervisors, but the review was good for me. However, much of the class training was new, and I feel that I am a better attendant for having had the course. I have some self confidence that I did not have before taking the course. But most of all, I found that we attendants were really recognized and appreciated, and I am more determined to put my best in my work."

Some of the suggestions by the attendants for the next course will be adopted. They desired more lectures on mental illness; they asked for smaller classes and for a bibliography of readings; they suggested that only attendants on day duty should attend the course.

Thus it is felt that the course was a success, and that it should continue. It is intended that at least two classes per year will be held in the future.

Maintaining Efficiency

IN A scientific personnel program every effort should be made to maintain employees to the maximum point of efficiency. Associated with this is the problem of labor turnover. If we select and train employees, maintain their efficiency, then we should also do all that we can in order to keep them as long as possible. Not only is a large labor turnover costly, but it has a demoralizing effect on personnel, and in our case, on patients also.

To maintain efficiency requires not only a continuous training program, but surrounding attendants with a wholesome environment. Social deterioration takes place when there are no stimulating factors for maintaining socially approved habits. State hospitals are usually located away from population centers, and thus the hospital must provide such cultural and recreational factors as may be stimulating and satisfying to attendants. Not only do attendants enjoy such conditions, but the patients also derive direct benefit from participation in such programs, and indirectly derive value from personal contacts with employees.

As far as salary and hours of labor are concerned, that is a problem of securing more funds. But there are many things which require only little financial outlay. Lectures, music programs, discussion groups, library facilities, athletic contests, periodic dances, are enthusiastically appreciated.

TABLE IV
A Study of the Resignations during the Months May 12, 1937, to July 1, 1937, of 16 State Hospital Attendants

ATTENDANT	EDUCATION (GRADE)	MENTAL AGE (YEARS)	DURATION OF EMPLOYMENT (YEARS)	REASON FOR RESIGNATION
N. M.	12		8	Marriage
M. G.	10		43	Marriage
M. H.	12		8	Marriage
H. C.	12		11	Accepted another position
V. M.	12	14.6	3	Accepted another position
M. B.	12	17.8	4	Accepted another position
E. D.	12		4	Enrolled for business course
S. L.	12	18+	12	Accepted another position
D. B.	12	18+	12	Entered nurses training
M. A.	12	14.3	8	Entered nurses training
D. C.	12	14.1	7	Entered nurses training
M. B.	12	15.7	9	Entered nurses training
A. B.	12	17.4	6	Entered nurses training
S. D.	12		2	Accepted another position
M. M.	12	14.9	24	Accepted another position
L. M.	12	18.7	1	Accepted another position

Causes of Labor Turnover

THE effect of unwholesome conditions among institution employees is apparent from the following study. In 1937 the author investigated the resignations of 16 white female attendants. The reasons for such resignations are given in Table IV. Unfortunately mental ages of all of these girls could not be secured. It is obvious that working conditions were such that the more educated and intelligent employee left as soon as possible. Also, in December 1939, of the 69 attendants studied previously (see Table II), 33 had resigned or had been discharged. This is approximately a 50% turnover in a period of only two years.

Industry Has Been Accused of Discriminating Against Older Workers. This is Obviously Untrue, as Industry Does Not Discriminate Against Anyone. It Seeks only to Employ, and Retain, the Best Workers Available. Yet Older Workers, Employed and Unemployed, Require Special Consideration.

Constructive Proposals *regarding* Older Workers

By GEORGE LAWTON

New York, N. Y.

THANKS to recent research, by investigators in the psychology of the ageing, there are now available devices which reveal workers' abilities with an accuracy, thoroughness and impartiality unknown a decade ago. The oldest of these studies goes back only 12 years; most of them are but three or four years old. It is upon such new findings that the following recommendations are based.

Every industrial plant and business institution financially capable of supporting it, might well have a staff, whose collective designation might vary, but which is here called a Job Re-Allocation Department, to deal with the problems growing out of the ageing of their employees. The functions of such a department are described below, under ten heads.

1. Job Analysis

EVERY type of position in the plant or business would be analyzed into component abilities: physical, mental, social-emotional, required for competence therein. Certain jobs demand mainly speed, alertness, strength; others chiefly accuracy; still others, skill and craftsmanship; finally, there are positions that can be successfully filled only by individuals possessing certain personality traits.

2. Appraisal of Incoming Workers

IN ADDITION to other types of appraisal, a psychologist would make an analysis of applicants' specific personality traits and mental abilities. The result of the mental ability examination would be compared with the average of successful work-

ers of the same age as applicant, and on the same job as he seeks. In time, it may be possible to establish estimates of probable length of successful service in particular jobs when age and current mental efficiency are considered.

One conclusion, tentatively established by recent scientific work, is that the higher the original intellectual endowment, the slower the decline—barring disease, injury and other untoward circumstances. Conversely, the lower the initial equipment, the more rapid the decline. If this finding were substantiated by additional research and industrial experience, it would greatly aid the process of forecasting job obsolescence, quite different from vocational or from human obsolescence. A life insurance company could not function without life expectancy tables. Perhaps a day will come when industry will find it equally indispensable to construct tables which will show how long persons of given mental endowment can expect to retain this endowment. A second table, equivalent to mortality tables in relationship to specific causes, would show in which abilities the decline is likely to come soonest.

3. *Inventory of Human Resources*

EVERY worker would receive at given intervals a re-appraisal of his abilities. It might be best if the time of presenting himself for such re-appraisal were optional with the worker, provided he appeared at least once within a given period in accordance with the following schedule, which may vary in accordance with the particular job obsolescence rate and other factors:

SCHEDULE FOR RE-APPRAISAL EXAMINATIONS

<i>Ages</i>	<i>Frequency of Examination</i>
20-34.....	Once every five years
35-44.....	Once every four years
45-59.....	Once every three years
60 and over.....	Once every two years

These re-appraisal examinations would determine current physical, mental and social-emotional assets and liabilities. Decision then would be made as to whether the worker still possesses the abilities required to carry on his job successfully. This judgment would be checked with that of the worker's immediate superior. When both appraisals show retention of previous levels, there is no problem of course. If the superior reports a falling off, but clinical study shows abilities are intact, further investigation will be necessary to explain discrepancy between potential abilities and performance on the job. If clinical study shows decline in certain abilities not apparent to superior, it probably means that this change has been temporarily concealed by extra effort. Rather than permit the worker to continue under such a strain, it would be best at this point to proceed to succeeding steps in the re-allocation program. When there is a simultaneous drop in job achievement and in ability, decision must be made as to whether rehabilitation or re-allocation and re-training is advisable.

4. *Rehabilitation*

THE type of rehabilitation meant here is that which attempts to restore an earlier level of mental efficiency to a person in whom a decline has occurred.

First, a study is made of the extent of loss in specific mental functions, and of the factors responsible. Some older persons suffer a loss in a particular ability like memory, new learning, quick perception, etc. This may be due to several different factors, not all or any of which are related solely to the age factor. Illness, poor work habits, emotional factors, such as family dissensions, worry over money difficulties, an insecure job, the pressure, real or imaginary, from a superior, may cause a loss in mental efficiency, which is spuriously attributed to advancing age.

Sometimes the decline is precipitated by the fact that the individual has reached the first birth-day of a particular decade in later maturity: the fortieth, fiftieth, etc. It is the critical emotional situation, the fear thus engendered, rather than the aging itself, which leads to a falling off in functioning level, sometimes temporary, sometimes permanent. Men, like women, undergo a menopause, dissimilar in certain ways naturally, but similar in others, particularly in the psychological realm.

So widespread is the assumption that age brings mental and physical disabilities for which there is no cure and no way of compensating, that the older worker, faced with what he regards as the inevitable descent on the toboggan of age, exaggerates every sign of passage down the slide. Searching intently for decreased work efficiency, he soon finds what society, his employer and he himself are all looking for.

Not an Industrial Panacea

CONFIDENCE in one's own ability, important at every age period, is especially crucial in later maturity. A young person can attribute his drawbacks to factors which time and experience will rectify. But the aging person cannot seek comfort in time. Time, he feels, is against him, not with him. Every investigator in the field of mental rehabilitation stresses this factor of morale. The writer has repeatedly witnessed the beneficial results of the realization on the part of an older person, that age brings with it not so much debits in the ledger of life as a change in what he has previously considered gains and losses. At every age level, we must learn anew how to live within our physical and mental income.

In a rehabilitation program, the first step, then, is to chart the causes and to decide whether these are alterable or not. If the outlook is favorable, the individual is given a program of remedial exercises and techniques.

Rehabilitation is proposed not as an industrial panacea or universal rejuvenator. Nor is the claim being made that it is always a complete or even partial success. Psychologists who have used rehabilitation techniques have found it often possible to restore an older worker to previous efficiency or near it in a given ability. Rehabilitation, in the sense employed here, is a very promising recent development and

very valuable in its present form. Admittedly, widespread research and utilization will lead to refinement and improvement in its methods, the nature or extent of which we cannot anticipate today.

5. *Re-allocation and Re-training*

THE worker who has undergone a marked decline in the abilities required in his job, and who is not eligible for rehabilitation techniques because of irremedial disabilities or because of advanced vocational age, would be re-allocated to another position within the range of his capabilities. The same would be done for the worker who does not respond to rehabilitation techniques. Instead of depending entirely on speed, strength or alertness, the worker's new position will call into play other abilities, those in which the time and energy factors are of minor importance.

Sometimes the new job will be equivalent in status, complexity and salary to the former one. At other times, since the change may also involve a reduction in the hours or days worked a week, there may be a lowering of status and income, which no one enjoys. But this is preferable to a total loss of status and income, and what is even more hurtful in the long run, the loss also of work-habits and morale.

Where the new job or occupation involves considerably different abilities from those previously exercised or where there is a new application of abilities formerly utilized, it will often be necessary for the worker to undertake a re-training program. Whenever a position for which the older worker's abilities qualify him is unavailable in a particular plant or industry, then the department through its liason relationships with other agencies and industries, will attempt to transfer the worker to such opportunities as may exist in these outside areas, if necessary retraining the worker for his new position.

Auxiliary Trades Suggested

IN A position or industry which emphasizes speed and energy and where the process of job obsolescence is therefore comparatively rapid, the department, early in the worker's career, might initiate the preparation for other types of activity, and even put him on a definite re-training program. This it would do, with an eye to the future, and long before there was any sign of lessened efficiency.

Vocational and trade schools, unions, governmental employment agencies, and adult education units should provide for the factor of job obsolescence. Every worker in a trade which involves the abilities likely to diminish with age should acquire an auxiliary trade, relatively unaffected by the aging factor. If we are to prevent very serious vocational maladjustment and economic distress in the years to come, such a preventive program in vocational re-education is absolutely necessary, whether it be carried out by industry, unions or governmental agencies.

6. *Continuous Re-allocation and Re-training*

It may be necessary to repeat this stepping down process with a given individual worker. The future will see a general utilization of the principle of job modification or "tapering off" of employment. Work, of some type, will never end so long as the individual is willing and able to perform some economically valuable or socially useful activity. How far job-re-allocation can go in a particular plant or industry will depend on the variety of opportunities yielded by the job analyses.

The success of this plan depends on setting aside for older workers those jobs which stress qualities other than speed and energy, instead of giving these jobs, suitable for older workers to beginners, particularly to young women. Whenever economic necessity leads to the establishment of new types of jobs, the possibility of these being filled by older workers might be considered, instead of taking it for granted that it should be the younger workers who go into them.

The writer is not acquainted with any study which purpose to give the percentage of older workers in given age ranges, who can be rehabilitated or re-trained, nor of those who can be successfully re-allocated. We need such data.

7. *Lay-offs*

WHENEVER a worker is laid off, who at the time is still able to meet the requirements of his job, and where there is a possibility of re-employment in the same job or a similar one, provision should be made for the continued exercise of his abilities, if for only brief periods at regular intervals. This is essential, not only because of vocational reasons, but for the purpose of keeping up morale. When re-employment in the former job seems likely such practice periods can be arranged for best by the previous employer. Otherwise, it should be carried out by unions, governmental agencies, adult education centers, etc.

8. *When Re-allocation and Re-training Are Not Effective*

WHENEVER the worker's abilities have declined to a point which makes him generally unemployable, several alternatives are open. If there is a pension system in the industry, one possibility is retirement for disability, another retirement for age, if the worker is old enough. Otherwise, he should be referred to federal and state employment agencies.

9. *Referral to Non-Commercial Employment Agencies*

THESE agencies will be of limited usefulness unless they have on their staff a group of persons who can offer the same technical assistance as a job re-allocation department in private industry. Attempts at finding work in the same trade or, at directing the worker into new trades, are not likely to prove very effective unless data is at hand concerning the physical, mental and social-emotional status of each jobless worker.

The worker who is declared employable, if not already receiving support from some other source, should receive a state or federal grant-in-aid during the period of rehabilitation or retraining. When this period is concluded and no employment has been obtained, the worker would receive financial assistance of the form customary today.

Workers found permanently unemployable because of non-remedial disease, infirmity, mental illness, personality disability, should thereby become eligible for social security, even if they are below the present minimum age.

10. *Retirement*

PENSION plans in the past ordinarily began and ended with the financial aspect, which was right and proper when the unemployed older worker did not present a major social and economic problem. Today, however, a pension plan thus limited is no longer adequate. From the viewpoint of the best interests of the individual and of society, no one should be retired who is willing to continue work, and who is physically and mentally able to handle some type of employment economically valuable. This may not always be a full time job. Financial compensation may be small, but the fact that it is a necessary activity, and receives recognition in terms of a salary is of great importance.

It is likely that a constantly increasing number of pensioners will begin permanent retirement from paid employment at earlier ages than in the past, perhaps at 50 or thereabouts, and will have longer life expectancies than before. The retirement period therefore will represent a considerable portion of the life span, perhaps one-third or even more, in some individuals. If paid work is unavailable for such persons, and the nature of our technological economy points to decreasing opportunities in private industry, the necessity of creating substitute paid or unpaid governmental positions becomes urgent. A considerable percentage of persons in the age range 50 and over can be utilized in community work of a recreational and social service character, which will not compete with paid workers.

Staff of Job Re-allocation Department

THE necessary members of a job re-allocation department, and their activities would be as follows.

1. *Personnel Officer* (Department Head). To authorize hiring and allocation of job-seekers and re-allocations of workers when these have been recommended by staff members.

2. *Personnel Officer* (Liason). To maintain a day-by-day exchange of information with employment agencies; federal, state and private; to maintain a file of community employment opportunities in terms of broadly worked-out job analyses; to maintain contact with employers in as many different fields, and over as large an area adjacent to the plant or business as feasible.

3. *Industrial or Occupational Specialist*. To make job analyses, to supervise re-training programs, not only from job to job, or from occupation to occupation within particular industry, but from one industry to another; to carry on exchange of information with all other types of re-training agencies in community and nation.

4. *Physician*. To determine medical status of present and incoming workers; to recommend vocational programs best calculated to prevent entirely or at least to reduce time of onset or severity of diseases, infirmities and physical disabilities common to men and women during later maturity; to maintain contact and carry on exchange of information with hospitals for chronic disease, or if none such exist at the time in the community, to confer with clinic officers and practitioners in this field.

5. *Psychologist*. To determine mental efficiency of present and incoming workers; to investigate and treat personality maladjustments prevalent among older persons; to plan programs of psychological and vocational rehabilitation; to make applications of mental hygiene to industrial situations.

6. *Psychiatrist (Visiting)*. To make diagnoses, as occasion arises, of approaching or actual mental illness severe enough to cause partial or complete loss of economic usefulness; to maintain close contact with psychiatric clinics dealing mainly with the mentally ill in older age groups.

Relation to Other Agencies

FROM the preceding, it follows that the department whether it be part of an industrial system, union, governmental employment agency, will be in a key position to draw up programs of activities for the post-retirement period, even if these be only hobbies and individual recreational devices. For it will possess complete data on the interests, personality and mentality of individual workers. Here it will be aided by governmental organizations, adult forums and schools. Although the seeding time for hobbies and recreational interests is in childhood and adolescence, our educational systems have not as yet begun to meet the problem of leisure-time activity. If schools are to prepare young people to successfully handle the problems they will meet as adults, then this preparation should be equally divided between the vocational and the avocational, since half the adult age range will be spent in working for a living, and half in leisure time activities and incidental paid or unpaid unemployment.

High Pressure Civilization

OUR American civilization has been a high pressure one with little utilization of leisure during the working life. We are witnessing today a gradual readjustment in our attitude toward the relative value of jobs and hobbies. But at the present we take persons still capable of productive work, who have been accustomed either to strenuous labor, or, if idle, to the worship from afar of strenuous

labor, and suddenly we end all activity, without offering any program to occupy the many empty years that otherwise will follow. With the increase in the older age group, it will become more and more difficult to continue forcing a condition of suspended animation upon a large portion of the population.

A private solution of this problem is being attempted in New York City by a group of persons employed largely in a single vocational field, and all assured of a small pension upon retirement. These people, called collectively "Our Retirement Planning Group," still have from five to fifteen years of paid employment ahead of them. Since they believe in retirement *to* and not retirement *from*, they are meeting now at regular intervals in order to anticipate their needs in years to come, and to work out a cooperative program of medical care, purchasing, social, cultural and recreational activities, employment (paid and unpaid).

The group is taking under its purview everything that may make possible as full and active a life, later on, as permitted by their pooled funds and joint resourcefulness in inventing new patterns of living for the post-retirement period. Persons in various delimited occupational fields who can look forward to pensions might set up similar groups. In some instances, the logical source of such a movement within a plant or industry would be the personnel department, in other instances, perhaps the union.

Plan Covers Much Territory

THE plan presented here covers a good deal of territory. This is inevitable if it is to protect in equal degree the interests of employers, employees of all ages and the larger social group, of which the employers and employees are both essential parts. Some aspects of it are immediately realizable; in other ways it is a blue print for the future.

To consider the employees interests first. The aim is to give the individual a longer and more satisfying working life. But neither this plan nor any similar one will work unless the worker is certain that decisions will not adversely affect the possibility of his obtaining some kind of livelihood or support. Examinations and interviews, on which the plan depends, cannot be valid if during them the worker is afraid that if he is not up to par he will be out on the streets.

Today we have mythological concepts of the relationship of age to abilities and to economic value. Workers, employers and society are all losers thereby. Some employees are vocationally maladjusted because they are not able to carry the physical and mental burden of their particular jobs; others are misfit because they possess capabilities utilized not at all or only in part.

From the employers' point of view a job re-allocation department has the advantage of making possible a higher standard of performance by placing the judgment of job achievement and job obsolescence on an objective basis. It is also a method for retarding job obsolescence, and for cushioning the effects of the latter

when it occurs, by setting up three categories of obsolescence; job, vocational and human.

From society's viewpoint a large unemployed and unoccupied older class, which in time will amount to more than one-half the adult population, can lead to much social and economic unrest, of which the present flurry of "Ham and Eggs" schemes is only a beginning. Greater purchasing power will come from wages paid to older workers than from unemployment insurance and social security funds. Moreover, with increased employment of older workers, federal taxation required to maintain such funds will decrease.

REFERENCES

An attempt to sketch what we definitely know about old age will be found in the symposium "Old Age and Aging: The Present Status of Scientific Knowledge." (*American Journal of Orthopsychiatry*, Jan. 1940.) Eleven specialists, representing different backgrounds, participated in this round table.

Other references are; *Mental efficiency at Senescence*, by J. G. Gilbert; *Measurement of Adult Intelligence*, by David Wechsler; *An Experiment in the Measurement of Mental Deterioration*, by Harriet Babcock; and *Mental Ability at Senescence*, and *A Long-Range Research Program in the Psychology of Old Age and Aging*, by George Lawton.

Interest in Personnel Work has Grown so Much in the Last Ten Years, that There are Now Personnel Associations in New York, Philadelphia, Pittsburgh, Chicago, Cleveland, Baltimore, Washington, and in the States of California, Colorado, Kansas, Massachusetts, Tennessee, Texas, and Washington.

The Society *for* Personnel Administration

BY RICHARD W. COOPER

Washington, D. C.

THE Society for Personnel Administration was organized in Washington, D. C. in the spring of 1937. Although the scope of activities provided for in its constitution, and bylaws, embraces all phases of personnel administration and employee relations in both public and private enterprise, the fact that it was founded in the Nation's capital, at a time of rapid and almost revolutionary development in the personnel activities of Federal departments and agencies, has resulted in the society's membership being, for the present at least, made up preponderantly of personnel men from agencies of the Federal Government.

Industrial Personnel Men Join Government

THIS rapid development of government personnel activities, which resulted in an influx of administrators and personnel men from private industry to the government service, during the early period of New Deal expansion, has brought a number of major developments. These include the reorganization of the Federal Council of Personnel Administration, extension of modern personnel practices to many of the old-line departments, and to nearly all of the New Deal agencies, and a rapidly increasing number of workers in the personnel field in the capital. This last factor made necessary some common meeting place, such as the society affords, for an interchange of ideas and clarification of new developments in the personnel field. Such meeting ground had not been previously available here, as it has been in New York, Philadelphia, and other large centers of population.

Society's Objectives

As set forth in its constitution, the society's objectives are:

- (1) "To promote and encourage the study, development, and use of improved methods and higher standards in personnel research and administration.
- (2) "To encourage fundamental and systematic training for personnel research and administration.
- (3) "To foster and develop interest in establishing and maintaining comprehensive programs of personnel administration for the purpose of bettering the conditions and relations of employees in their occupations and increasing the effectiveness of administration.
- (4) "To provide a forum for the interchange of thought and a medium for the collection, publication, and distribution of information relating to personnel research and administration."

The society works towards these objectives through discussion and study groups, and through its publications. The discussion sections, each led by a member well acquainted with his own particular field, meet every 2 weeks, and are open to all members. Ordinarily, meetings of each group are attended by from 10 to 40 persons who work in the specific subject field of that section. During the last year the specialties covered by the five groups were: Selection and placement, employee relations, employee training, position classification, and general personnel administration.

Splits into Working Sections

The topics of discussion are varied. For example, the Employee Relations Section invited the presidents of the three principal unions of government employees to meet with them and discuss their respective programs. The employee relations policies of three agencies which have done considerable work in this field were discussed under the direction of the personnel directors of the agencies concerned.

Subjects discussed by the Selection and Placement group ranged from the keeping of personnel records, to the use of oral interviews in testing, and included discussion of exit interviews, exit service ratings, and the use of punch cards for placement purposes.

The Training Section studied the preparation of employee handbooks, coordination of training among the government departments, the question of awarding promotion credits to employees for the completion of training courses, and supervisory training.

The subjects to which the various sections devote their attention are selected by the society members on a basis of their personal and professional interests. To insure effective representation of members' points of view in working out the program, a questionnaire has been developed, and is circulated to obtain information

on what subjects members wish to study and discuss, the level of difficulty at which they wish to attack the problems raised (that is, whether they wish elementary consideration of the problems or a discussion of advanced phases of specific types of activity), and such other details as the time and place of meetings.

Monthly dinner meetings of the society provide an opportunity for the entire membership to get together to listen to panel discussions, or to hear speakers from governmental and business establishments talk on current topics in various phases of personnel administration. Included among these speakers during the last year have been Dr. Walter V. Bingham, Dr. Ben Wood of Columbia University, Congressman Ramspeck of Georgia, and others.

Publishes Magazine

IN RECOGNITION of the desirability of reducing to writing some of the contemporary contributions to the development of personnel practices, particularly in the Federal service, where little has been written on the subject, a monthly journal "Personnel Administration" was started in September 1938. During its first year this journal paid particular attention to operating personnel problems.

The experiences of Federal departments, local public personnel agencies, and of private industry have been presented in a form adapted to consideration and use by personnel administrators and employee relations men. In the 10 issues published during its first year, the journal covered topics including among others, developments in employee service rating, analysis of sick and vacation leave, the use of moving pictures for employee training and personnel legislation pending in Congress.

The policy of the journal is to give sympathetic attention to new developments in the field which appear to have a practical value, and to encourage continued study and refinements of methods already in use. At the same time, the journal tries to avoid duplicating the work of the Civil Service Assembly, the "Personnel Journal," and "Personnel."

In addition to "Personnel Administration," the society has begun the publication of a series of pamphlets. Two have already been published, "Administrative Ability" by W. V. Bingham, and "Oral Interviews" by Samuel H. Ordway, Jr. of New York and James C. O'Brien of Washington. The pamphlet series is edited by Max Freyd.

Membership Grows

THE society was established with a dozen charter members. By September, 1938 it had grown to 100 members, and now numbers over 300. The potential membership of the group in Washington alone is around 600.

Dr. W. W. Stockberger, former director of personnel for the United States Department of Agriculture, and dean of Washington personnel men, was elected first president of the society and held that office until last May. He was succeeded by

Oliver C. Short, former employment commissioner of the State of Maryland, and now director of personnel for the Department of Commerce. Other leaders of the society have included Samuel H. Ordway, former United States Civil Service Commissioner, Milton Hall, W. C. Bowen, Ismar Baruch, Russell L. Greenman, formerly of the United States Chamber of Commerce, R. R. Zimmerman, Dick Carlson, and Albert H. Aronson.

The business affairs of the society are carried on through an annual meeting of the whole membership, and monthly meetings of the executive council, which is made up of the four members of the board of directors, the three officers, the leaders of the discussion groups, and the chairmen of the program, publications, and membership committees. This executive council acts as a coordinating group in setting the day-to-day policies of the society, and in passing upon the activities and suggestions of committees and discussion groups.

Youngsters Are Listened To

BECAUSE personnel workers of all levels of experience belong to the society, a page has been taken from modern management in setting up an advisory board made up of seven of the younger members. Members of this advisory board must receive base salaries of \$3,200 per year or less. They are chosen to present to the executive council the ideas and needs of junior members, and to ensure their broader participation in the management of the organization. This board meets monthly, and is represented on the executive, membership, and program committees.

Future expansion of the society's activities is indefinite. It is possible that in addition to its publications, and discussion groups, committees dealing with specific research problems may be set up to make studies and publish the results of their work in monograph form. Further expansion of the discussion group program also may be expected. Activities are somewhat limited as the society operates on a budget which covers only the cost of printing of its publications and other incidental expenses. It has no paid employees, and all of its functions are conducted on a purely voluntary basis, the income being made up entirely of membership dues of \$5.00 a year and subscriptions to the journal.

The society is playing a valuable, though entirely unofficial role, in the new developments in the Washington personnel scene. With the impetus given to the development in the Federal service, by recent executive orders of President Roosevelt, and with further development in the private personnel field, the society serves an important function in providing a group through which personnel workers of all levels can get together to discuss their problems. Here they work out plans for further improvements, which should result not only in dollars' and cents' savings to taxpayers and stockholders, but also in a marked improvement in the quality of the work done by public servants, and by industrial and business employees in the area.

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Free Cooperation is Natural and Human; It Takes Place Spontaneously among Settlers in New Countries, and the Most Primitive Men. But as Social Life becomes More Complex a Secondary and Artificial Discipline Tends to Supplant it.

Studies in Cooperation

From a report
By S. A. COURTIS

UNIVERSITY of Michigan
Ann Arbor, Michigan

MORE and more, American business seems to be conducted by the conference method. We all spend seemingly endless hours in meetings, negotiating with labor leaders, trying to get our recommendations accepted by our chief executive, conferring with our associate executives to decide policies, with our subordinates to try to get them to understand and carry out policies decided upon, and in meetings of various committees upon which we serve.

These are often the most wearing experiences of our lives, but we do not seem to have learnt much about how to decrease the wear and tear, and increase the pleasantness of these opportunities for social contact, with our fellow executives and employees.

How Well Can We Operate?

YET these conferences are essentially means by which we cooperate with one another. How high is our level of cooperation? Can we by study of conference aims and methods raise the level of our meetings, as cooperative endeavors?

Professor S. A. Courtis, of the University of Michigan, has been studying ways and means of doing this for several years. Not only has he been experimenting in his classes, but has led a group of Detroit personnel men, who meet regularly, to clarify their ideas of cooperation, and formulate suitable procedures.

With his permission, we give below extracts from the reported results of these Michigan studies. We also give, for comparative purposes a report of collective bargaining negotiations between the Newspaper Guild of New York, and the management of one of the newspapers. The report was prepared by a Guild member.

As we think over the conferences we lead and attend, it would seem that by study of Professor Courtis's methods, and practice in their use, we could vastly improve the level of cooperation in our companies.

I. Levels of Cooperation

THE word cooperation is used with many connotations. It means, literally, "working together"; and in this paper any working together toward some common achievement by two or more individuals will be called cooperation, whatever the motive that dominates the common activity. It will be evident at once that cooperative endeavor so defined may take place on many different levels. We here present a scale by which the levels of any cooperation may be precisely described.

Types of Cooperation

A LITTLE reflection will convince any one that there are two types of cooperation to be considered: (1) cooperation in action directed toward specific achievement and (2) cooperation in creative thinking.

Judgment of cooperation in "action-resulting-in-achievement" has nothing to do with motives; judgment is to be made wholly in terms of efficiency. When all members of a group act together, each doing his part efficiently, the efficiency of achievement is high. To secure unity of effort and union in action, some form of regimentation and direction is essential. Military manoeuvres by a well-disciplined army are excellent examples of efficient cooperation in action. Accordingly, cooperation in action is not represented in the scale as such although achievement is always a part of the picture.

In cooperation involving individual creative effort in thinking and planning, the quality of the product, or the *level* of cooperation, is a function of the motive that controls actions and of the conditions under which it takes place.

Scale of Cooperation

COOPERATION has gradually evolved; it has not been suddenly created. The paragraphs below describe a series of illustrations of "working together," each of which represents an evolutionary advance over the one before it. Note that the basis of organization of the elements of the scale is sequence of appearance in life. To describe any instance of cooperation, it is merely necessary to compare it with the scale elements and give it the name of the one it most nearly resembles. You will find it helpful to memorize the names of these different levels and their most evident characteristics.

Level 0. Singularistic Reaction

THE lowest limit of animal behavior is, of course, the response of the single animal-cell to stimulus. This will be called the zero of a scale of cooperation, since but a single individual is involved. Illustration. Man slipping on a banana peel.

Level 1. Involuntary Cooperation. Pluralistic Reaction

LEXALISM is the simultaneous response of many individuals to the same stimuli. Named by Cuddings, pluralistic response, as when many protozoa gather around an air bubble or a source of food. Strictly speaking this also would not, ordinarily, be considered cooperation or even group action. It is as truly singularistic as the response of a single protozoan, *except that the simultaneous presence of many individuals in the same locality leads to consequences which have a bearing upon the lives of each and all.* Thus the excretions of the separate individuals, or the diminution of the food supply by the feeding activities of the separate individuals, may make living conditions in that locality less favorable. Such an effect is, however, cooperative no more than the setting of the sun, or the coming on of winter, is cooperative.

Nevertheless, in appearance, a group of living animalculae, actively feeding in one locality, has the appearance at least of group action and there is need for such a place on our scale in order that similar human behavior may be appropriately described. For instance, a consumer is sometimes said to be cooperating with the producer of the thing consumed, although neither the consumer nor the producer ever saw or thought of the other. The action of the consumer, although conscious and reasoned, is primarily a singularistic response to stimuli, in spite of the fact that it is an outcome of social forces and leads to social consequences. It seems better, therefore, to call such behavior cooperation, and to indicate its low order by having the place which corresponds to it low down on the scale.

Level 2. Impulsive Cooperation

THE simplest species of animals have no organized nervous mechanism. Their responses are due to the innate irritability of protoplasm. Higher animal forms have specialized nerve cells and organized systems of such cells. Their responses are psychological in nature, but apparently are not under conscious control. Through the evolutionary process, small elemental responses become organized into consistent wholes called instincts, and much instinctive behavior is frequently regarded as cooperative.

The stampede of a herd of frightened cattle is instinctive behavior. It might be classed as cooperation of level one type, were it not for the fact that the behavior of other individuals like himself is a part of the stimulation which governs individual behavior in the herd. Hunting by animals in packs is instinctive behavior on a slightly higher level. It seems necessary, therefore, to take as level two on the scale instinctive pluralistic behavior of groups of animals, which is more than merely pluralistic response to common stimuli and less than conscious cooperative effort.

While the lowest forms of recognized cooperative human behavior are clearly of the level two type, such as a panic or other form of instinctive mob action, there

are forms of pluralistic human behavior which are on a higher level than this but lower than action motivated by a *common* rational purpose.

Level 3. Compulsion

LEVEL three compulsion will be considered to include all pluralistic behavior in which there is concerted volition, but in which the individuals are actuated by different motives, the motives of director and directed being essentially antagonistic. Father and son *both will* that the son go to school; but if school is distasteful to the son, his real purpose or motive may be to avoid punishment by the parent, not to learn. Moreover, if the stimulus,—possible exertion of disagreeable compulsion by the father,—can be successfully avoided, the child *will not* go to school. Cooperation at level three is always unstable, tending to break down at the slightest weakening of the compelling force below a critical minimum.

The compulsory cooperation of level three includes all relationships between individuals *unequal in power* in which the will of the more powerful individual is sustained by force: parents and children, master and slaves, king and subjects, traffic officers and motorists, etc., etc., without end. The essential characteristic of cooperation at this level is the *imposition of one will upon another*, whether the domination is that of physical violence, position, intelligence, or affection. The child who performs a distasteful assignment solely because of an overpowering affection for his father may be said to be cooperating on the third level.

If for any reason the parties to cooperative action on the compulsory level become equal in power, it is no longer possible for one party to impose his will upon the other.

Level 4. Exploitation

SOMETIMES it happens that competing individuals are equal in power so that neither is able to *compel* the other. One may then attempt to win by trickery or deceit the consent of the other fellow to the adoption of the plan being considered. This type of action will be called *Exploitation*. A classic illustration is found in the fable of the monkey who used a "cat's paw" to pull chestnuts from the fire. Suppose a father desires his son to go to college to "get an education." Suppose also that the son considers education "the bunk," but wishes to play football. The father's purpose includes football only incidentally if at all. Outwardly the son adopts the father's plan and cooperates with him to the extent of actually going to college. But as his purpose differs from his father's, he really exploits his father to serve his own ends.

In exploitation, outwardly there is unity of action; but inwardly, there is no unity of purpose. Moreover, as soon as the difference in purposes is perceived *by the party exploited*, the cooperation ceases. Hence in exploitation there is always an element of concealment, trickery, or deceit. Because of this immoral element,

exploitation might be rated low on the scale. Actually it is put above compulsion because, on the one hand, it is frequently used with less evil consequences than compulsion, and, on the other, it has the outward appearance of the higher forms of cooperation. A person with evil intent may for a time act in conformity with any of the higher forms until his purpose is achieved. Hence exploitation, strictly speaking is not a form of cooperation at all but a method of using cooperative techniques for noncooperative ends.

Level 5. Compromise

WHEN two competitors are equal in power and so keen that neither is able to exploit the other through deceit, trickery, etc., a stale-mate ensues. Neither is able to achieve his purpose, but he is able to prevent the other party from achieving his purpose. Out of such a stale-mate comes eventually a new form of cooperation accepted voluntarily by both parties, yet satisfactory to neither.

It will be called "*Compromise*." Each grudgingly yields a part of his own plan and accepts in its place a part of the other's plan. As a rule a compromise plan is less perfect than either plan alone, and is accepted by all only as the best that is possible under the circumstances. Compromise may be thought of as compulsory bargaining. This is the first level on which both parties consciously adopt a common purpose of their own volition. They are under compulsion, but not under the compulsion of the other person's will alone as in compulsion.

Level 6. Bargaining

BOTH exploitation and compromise pave the way for a form of cooperation which results in benefit to each party without injury to either. This type will be called Bargaining or Exchange. One man has property and desires money; another has money and desires property. The two exchange. Each achieves his desire; neither injures the other. There is unity of action and unity of purpose, but the ends served are different. Each may be perfectly satisfied with the bargain, but primarily the motive actuating each is *possessive and selfish in its essential nature*. The reciprocal cooperation of bargaining has for its goal chiefly, if not wholly, the benefit of a *narrow individual self*. Nevertheless, perhaps it is needless to say, most of the work of the civilized world at the present time is carried on by cooperation of this type. We are blind to the social consequences of our actions and say, "Let the other fellow look after himself." Bargaining expresses the spirit of "Laissez-faire."

Level 7. Leadership

ON THE other hand, concerted action may be truly the result of agreeing decision. All the minds involved may share their perception of stimuli, feel a common motive, divide the labor between them, and cooperate in bringing about a common

achievement. A father may share his views of the function of education with his son, and the son his views with the father, until attendance at school comes to have a common meaning to both.

In such a case, however, the very immaturity of the son limits both his initiative and his understandings of the situation. While both father and son cooperate in the child's education, the father's purposes, in their range and comprehensions, far outstrip his son's. In practically all cooperation of this type, the purposes of leaders will differ similarly in many characteristics from those of their followers. Such cooperation has in it an element of domination. It is the domination of superiority in vision or ability. It will be called the cooperation of *Leadership*.

Level 8. Democratic Cooperation

THE highest form of cooperation is Democratic Cooperation, in which the well being, freedom, and growth of *each individual* is desired *by all*. To achieve this level, there must be complete sharing of experience until all individuals become *equal in knowledge and desire* with respect to the situation being considered. Each personality must contribute distinctively until a rich unity of thought and purpose results. There must be a "making-up-of-the-group-mind" by a process very similar to that in which the individual makes up his mind. Accordingly, "Public opinion is no mere aggregate of separate individual judgments, but an organization, a cooperative product of communication and reciprocal influence. The minds in a communicating group become a *single organic whole*. Their unity is not one of identity but of life and action, a crystallization of diverse but related ideas."

Conclusion

ANALYSIS of social activities warrants the conclusion that some of ordinary life is on the level two, much of it on levels three, four, and five, while most of the effective work of the world takes place on level six. At rare intervals cooperation on level seven occurs. Only between close friends, in limited situations, and at rare moments does cooperation ever rise to level eight.

The next forward step in human development is, therefore, the conversion of cooperation on levels two, three, four, five, and six into cooperation on levels seven and eight, through training in the technique of cooperative collective action instead of in the technique of competitive individualistic action as at present.

American civilization has emphasized the virtues of citizens as individuals. Success under frontier conditions depended upon initiative, originality, and executive ability. Both our individual and our social life has emphasized *aggressiveness, creativeness, resourcefulness, persistence* in the pursuit of happiness. We are a nation of "go-getters." Literally millions of immigrants, under the stimulating influence of American conditions, have escaped from the dependence and limited opportunity of the peasant class in Europe into the independence and freedom of American

liberty. *III* expression and *III* realization have been the dominant motives in our theory and practice both of individual and of social control.

All this is good, but it is not enough. We need to learn how to cooperate, not on an individualistic competitive basis where each man fights every other man to persuade or compel the group to adopt the purposes and plans which seem good to him, but on the basis of social unity where each man considers not only his own good and the good of other men, but also the *good of the group as a group*; where each member of the group sees in friendly cooperative action, returns to him in terms of recognition and sympathy, of personal stimulation to creative thinking, and of opportunities for creative expression, so great and so desirable, and obtainable in no other way, that he voluntarily exercises that self-discipline which alone makes possible the achievement of social unity.

II. Low Level Cooperation

IN READING the account below you are to consider that a conference leader has brought the problem of cooperation before the meeting in a sufficiently stimulating manner to make them all interested in the general subject; that he has assigned the selection of a topic, and the preparation of a plan illustrating progressive methods, as problems to be solved cooperatively; that he has proposed, and they have agreed, that they shall take over the project as a test of their own power to cooperate, without aid or assistance from him; that when the time came, he said, "Are you ready to take over the project?", and upon receiving general assent from them, left his desk and sat down at one side of the room.

Trouble about Chairman

MR. A arose at once and said: "How many are in favor of having Mr. B as temporary chairman? All those in favor raise your hands. Contrary minded? The ayes have it. Mr. B, you are temporary chairman."

Mr. B took the chair and said: "I'm much surprised at being appointed chairman. I don't know much about being chairman or about parliamentary law. I thought it would be a good thing if we had a different chairman each day so we could all have the experience, but if you want me, I'll do the best I can.

"I think we need a secretary. Will someone please nominate a secretary?"

Mr. C: "I nominate Miss D."

Chairman: "Is the nomination seconded?" Voice: "I second the nomination."

Miss E: "I move the nominations be closed." Voice: "Second the motion."

Chairman: "Miss D has been nominated secretary and a motion has been made and seconded that the nominations be closed. A vote for this motion is equivalent to a vote for election. All in favor raise hands. Contrary minded? Miss D is elected. We shall expect you to keep a record for us, Miss D."

"Now I suppose we need to select a topic. What do you wish to do about the matter?"

Mr. F: "Mr. Chairman, I rise to a point of order. We elected a temporary chairman, I move we proceed to elect a permanent chairman." Voice: "Second the motion."

Messrs. B, C, G, all together: "Mr. Chairman!"

The chairman ignores them all and says: "Oh, I'm sorry. I didn't understand. Yes, you are right. The election of a permanent chairman is in order."

Mr. B, breaking in: "I move that the temporary officers be made permanent officers." Voice: "Second the motion."

Mr. H: "Oh, what do we need *any* officers for! This is a small group and we can talk back and forth without officers and red tape. I move we don't have any officers." Voice: "Second the motion."

Mr. B: "I rise to a point of order. There is already a motion before the house. I moved that the temporary officers be made permanent and it was seconded."

Chairman: "I don't think it is a good thing to have the same officers all the time. I was willing to serve as temporary chairman and I thought that meant just for today's session: so at the last of the hour, I was planning to ask for nominations for a chairman for our next meeting. But I would be unwilling to be permanent chairman. I feel . . ."

Mr. F, breaking in: "I made my motion before Mr. B made his. I think my motion should be considered first."

Chairman: "I'm sorry. I didn't hear it. What was your motion?"

Mr. F: "I moved we proceed with the election of a permanent chairman."

Was Motion Seconded

CHAIRMAN: "Your motion wasn't seconded."

Mr. F, hotly: "Yes, it was! Miss I seconded it." Miss I confirmed Mr. F's statement.

Chairman, resignedly: "Well, I'll put the motion. It has been moved and seconded that we proceed with the election of a permanent chairman. Is there any discussion?"

Mr. H: "We have already wasted ten minutes and we are no farther along than when we started. Let's leave all this tomfoolery and get down to business."

Chairman, grimly: "Is there further discussion?" Several voices: "Question."

Chairman: "A vote is called for. All those in favor of the motion raise your hands. Contrary minded. The vote is 17 for and 16 against. The motion is carried."

After another ten minutes of parliamentary wrangling three persons were nominated, and one finally elected and installed as permanent chairman.

New Chairman: "At last we are ready to tackle the job of selecting a topic for the lesson plan. Twenty minutes of our half hour are gone, so we shall have to work fast. Have you any suggestions?"

Miss J: "All teachers are interested, or should be interested, in current events. I suggest as the topic of the lesson, 'Resolved, the United States took a forward step in overcoming the depression by going off the gold standard'."

How to Compute a Median

MR. C: "You can't write a lesson about that. It's too general and too complex. I move we take something definite and practical, like 'How to compute a median'."

Miss E: "I don't know anything about statistics and that topic would not be interesting to me. Besides, I think the lesson ought to be something for children. We have to prepare lessons for children. Why wouldn't a lesson in English do? We all know English."

Mr. B: "We all know mathematics too. English is too indefinite. I think a lesson in algebra or geometry would be much better. That's definite and positive. Besides, I don't see how progressive methods could be used in such situations and I think we ought to take something hard so we can learn something."

Miss I: "I like the suggestion that we take current events, but I think we ought to choose something from the lives of the children. The Gold Standard is on too high a level."

Mr. F: "Mr. Chairman, can't we have the suggestions written on the board? I can't remember them all."

Chairman: "That's a good idea. Miss D, will you please write the suggestions on the board?"

Miss D: writes and various members prompt. Difficulties of wording and spelling arise and are adjusted one by one.

Mr. H: "I think we have too many suggestions. We aren't getting anywhere, and it's almost the end of the hour. I second Mr. C's motion."

Chairman: "What was Mr. C's motion? I've forgotten."

Miss D; "Mr. C moved that the topic of the lesson be 'How to compute a median'."

Chorus from the group: "No, no, we don't want that."

Mr. C: "The motion has been made and seconded. Mr. Chairman, I demand a vote."

Mr. G: "What's the use of wasting time on red tape? Why can't the chairman proceed informally? It's easy to see the motion will be lost. Why do we have to go through all the motions of voting? I move we authorize the chairman to proceed informally." Voice: "Second the motion."

Mr. C: "My motion is already before the house, Mr. Chairman. Mr. G is out of order."

Time Up

CHAIRMAN: "The chairman is glad to proceed informally so long as his actions are not questioned, but they have been questioned; so there is nothing to do but to follow the rules. Is there any discussion of the motion?"

Miss E: "It seems foolish to adopt a topic that none of us know anything about. I hope everybody will vote against the motion. I'm going to."

Mr. C: "Don't you want to learn something?"

Miss E: "Yes, but not statistics. I want to learn how to write better lessons in English."

Voices: "Question, question."

Chairman: "A vote is called for. How many are in favor of the motion? How many opposed? Vote is 2 for, 31 against. The motion is lost."

Instructor: "Our time is up. Be prepared to continue the discussion at the next class meeting."

III. Democratic Cooperation

MR. A arose and said: "While our group is small, I feel we shall need a chairman to coordinate our efforts and a secretary to keep a record of what we do. I suggest the election of a chairman and a secretary as our first order of business. I'm going to write my suggestion here on the board." Writes. "Perhaps some of you have other suggestions. Let's get all the ideas of the group and then decide."

Mr. B: "Mr. A, did you mean the election of permanent officers to serve every day?"

Mr. C: "Yes."

Mr. B, coming forward and writing on the board: "Then, I'll suggest that we choose new officers at each meeting. While it will take time, I feel that being chairman or secretary is a valuable experience. We are trying to learn about cooperation, and probably some part of the success in cooperation depends upon what kind of officers the group selects. I think it would be good for all of us *to see* many different chairmen and secretaries and *to compare* them, as well as *to have the* experiences of being officers ourselves."

Seeking Suggestions

MR. A: "I guess you're right. I'd like to change my suggestion to include Mr. B's idea of temporary."

Miss C: "I object. The constant election of officers will waste time and spoil the continuity of effort. I should like to see Mr. A's suggestion stay before us for the present. Perhaps we can get some other suggestions that will be better than any of these we have, but let's save these for the present."

Mr. D: "Wouldn't it be a good idea if we begin with the first name on the class list as a chairman, and the second as secretary, for the first day, and follow right down the list in order, day by day?"

Voices: "Write your suggestion on the board." Mr. D writes.

Miss E: "Mr. D, what do you think of Mr. B's suggestion that we need to have experience with many types of officers. We haven't many days to work together, and if we take the names in regular order, we have no assurance that the chairman will differ. Would you be willing to take the first two names for today, and then have a committee appointed to canvass the number of sessions and the experience and personalities of the class, and for our remaining sessions select officers that will give us as wide a variety of experiences as possible; men and women, experienced and inexperienced, with aggressive and with retiring personalities?"

Mr. D: "Yes, that's a fine idea." Nothing more was said for a few moments.

Mr. F assumed the leadership and said: "Are there any other suggestions?" No more were forthcoming.

Plan Worked Out

MR. F: "We have three suggestions before us,—Mr. A's on election of permanent officers; Mr. B's that the officers be temporary; Mr. C's and Miss E's that we take the first two names on the list for today's officers, and appoint a committee to canvass the class and our opportunities, and provide us as wide a variety of officers as possible. Are we ready for a vote?"

Mr. F: "Before we decide, ought we not consider whether there are any other officers we need? For instance, we need a record of what we have accomplished to use at later meetings, and we are going to need things written on the board. I suggest the committee select good writers for the board record because we all have to read what is written. I think we need a chairman, a scribe, and a secretary. Perhaps there are other officers we should have." Mr. F writes his suggestion on the board. The group was quiet for a moment thinking. No further suggestions were offered.

Preferential Vote Taken

MR. D: "I suggest we take a preferential vote to see what the group thinks about these matters. Are there any objections to my asking how many are in favor of the various ideas?" No objections were expressed. "Very well. Let's begin with the last one. How many think we need a chairman, a scribe, and a secretary? Raise your hands please. Contrary minded?" There were no contrary votes. "How many think we can get valuable experience by having different officers each time, provided we have a committee to select officers so that we don't waste any time choosing them?" Again all were favorable. "How many are willing to take the first three names on our class list for today's chairman, secretary, and scribe, and to use the best writer of the three for the scribe?" Again all were favorable. Mr. D. then called on Mr. A, Mr. B, and Miss C to come forward and write their names on the board. Miss C proved to be the most legible writer. Mr. A was declared chairman, Mr. B secretary, and Miss C scribe.

Mr. A took the chair and said: "I thank you for this opportunity and will promise to do my best. My understanding is that I am *not to lead but to coordinate* and facilitate your deliberations. Until some one objects I shall use informal methods of control in an attempt to save time, but if conflicts arise or if at any time you desire formal action, I can resort to formal parliamentary procedure. Are there objections? . . . The chair hears none.

"Our first business under the action taken previously is the appointment of a committee to select officers for future meetings. What is your pleasure?"

Committee to Be Appointed

MISS G: "Mr. Chairman, I suggest that you appoint a committee of two to canvass the 'philosophies' we wrote at the beginning of the course, select the good writers as possible scribes, and divide the remaining members into groups representing variations in experience and ideas."

MR. H: "I should like to ask Miss G if she doesn't think the committee should survey the class and *see* the different types of personalities as well. The committee might also use the class ratings we made and the tests the instructor gave us."

MISS G: "Yes, I shall be glad to include those and any other means anyone can think of in my suggestion."

Chairman: "Does anyone know of any other means that might be used?"

MR. D: "The committee might use a questionnaire if they need more information than they could get from existing records and opportunities."

Instructions to Committee

CHAIRMAN: "Are there other suggestions?" None were forthcoming. "Then unless some one objects, I shall appoint the next two names on our class list, Mr. D and Miss E, as a committee to appoint officers for each of our subsequent class meetings, instructing them to provide us with as wide a variety of officers as possible, men and women, with aggressive and with retiring personalities, experienced and inexperienced. I shall appoint them with power, but suggest that so far as seems wise, they use the biographical sketches, and 'philosophies' previously written, the tests given the class by the instructor, the class ratings, and questionnaires if necessary. Have I expressed your wishes? Is there any objection . . . or further suggestion?"

MISS I: "It might be embarrassing if the committee reported the actual basis of selection for any one individual. I doubt if I could be a successful chairman if I were selected as the worst in the class. Would we not all feel better about it if the committee kept the basis of selection a confidential matter?"

Chairman: "How many are favorable to Miss I's suggestion that the committee keep its bases of selection strictly confidential?" Many hands. "Anybody opposed?" None. "The committee is to keep its bases of selection strictly confidential. Are there other suggestions?"

MR. F: "I suggest that the committee after today be prepared to report at the close of each meeting, the officers for the next meeting so that they may have opportunity to go over the minutes of previous meetings and prepare themselves for their work."

Selection of Topic

CHAIRMAN: "Are there any objections? . . . It is so ordered. Are there further suggestions?" None were forthcoming.

Chairman: "We are now ready to turn to the next order of business, the selection of a topic for a lesson. We have ten minutes left. What is your pleasure?"

Mr. J: "All teachers are interested, or should be, in current events. I suggest as the topic of our lesson, 'Resolved, the United States took a forward step in overcoming the depression by going off the gold standard'."

Chairman: "Mr. J, unless there are objections, I am going to rule you are out of order. You have made a specific suggestion, but the chair has received no instructions as yet as to how the group wishes to proceed. Won't you please hold that suggestion until the group decides how it wishes to go about the selection of a topic?"

Method of Selection

Mr. D: "I suggest we proceed to collect topics suitable for a lesson."

Miss E: "We have only a few minutes left—we won't get very far. Even if we had lots of time, we ought to establish some general specifications to help us in making suggestions. I suggest we spend our time now listing specifications, and then come next time prepared to make suggestions in accord with the specifications."

Mr. D: "You are right. I withdraw my suggestion."

Chairman: "If there are no objections I will permit Mr. D to withdraw his suggestion. I hear none. It is withdrawn. Have you further proposals?"

Mr. D: "In the view of the shortness of time, I move we adopt Miss E's suggestion." Many voices: "Seconded."

Chairman: "There seems to be unanimous support for Miss E's suggestion. Are there objections? I hear none. Therefore, the purpose before the group is to collect suggestions for specifications."

Miss E: "I suggest that the topic ought to be interesting to children."

Miss I: "Wouldn't we learn more, Miss E, if the topic wasn't interesting? It would be hard to write a progressive lesson on grammar."

No Arguments Allowed

CHAIRMAN: "Unless there are objections, I shall rule that arguments are out of order, Miss I. Wouldn't you be willing to state your objection in the form of a suggestion that the topic be dry, difficult, and uninteresting to children?"

Miss I: "Yes." Chairman to scribe: "Please write it so, as a second suggestion. Are there other suggestions?"

Miss G: "I suggest we determine the grade for which the lesson is to be written.

We represent all grades here and obviously some choice of grade must be made." Suggestion received and recorded.

Mr. H: "I'm not sure I know just what is meant by writing a lesson plan. I suggest we ask the instructor to define the problem more in detail."

Mr. J: "Mr. Chairman, it seems to me we are getting a wide variety of types of suggestions. The last two have not been suggestions of specifications at all but of different procedures. In view of the fact we have only a minute or two left, and that we plainly have not thought the situation through, I move we reopen the question of purpose next time, and that we each come prepared to present a definite plan of things to be done that we may select a purpose intelligently." Chorus of: "Seconded."

Chairman: "If there are no objections I am going to rule that the first order of business at our next meeting will be to redetermine our purpose and to call for suggestions for plans of procedure. Are there any objections? It is so ordered. Class adjourned."

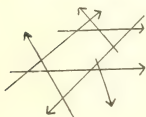
IV. Analysis of Cooperation

THE outstanding difference between the above two meetings is that in the first the chairman and members are thinking only of what *they* feel, *they* wish, *they* want, *individually*, while in the second the individual members are *group* minded. They are thinking and planning *for others*. They submit their ideas *to the group* for *group approval* and *group adoption*. They strive to understand the other fellow's point of view and to help him make a contribution.

Group mindedness and a willingness to express one's self through group action is basic to high-level social cooperation. In individualistic competitive action, each attempt at action cuts across other attempts at action and final decision is reached by compromise. The compromise is always less desirable than the ideas which are represented in it. Compromise is a species of elimination of distinctive but conflicting elements until only the mediocre obvious elements, common to all, remain.

Social integration is a species of growth in which each suggestion is a contribution, and the final product is richer than that suggested by any member. In individualistic cooperation, motions are used to compel the group to consider some individual's ideas: in social cooperation motions are out of order until the *group* mind and the *group* will are clear. Then the motion becomes merely the decisive expression of the agreement that has been reached. The two types of cooperation may be represented diagrammatically as follows:

Individualistic



Social



Too Much Egotism

SPECIFICALLY, note the following instance of personal and individual expression, unsubordinated to group will.

Mr. B cutting across Mr. F's suggestion and trying to use it to achieve his own purpose. "I move the temporary officers be made permanent."

I think we need a secretary. Will some one please nominate. . .

Chairman: *I don't think it is a good thing. . .*

I would be unwilling to be permanent chairman.

I was planning. . .

the calling for votes to prevent discussing of opposing views.

Mr. C cutting across consideration of Miss J's suggestions by objections to a counter motion, etc., etc., etc.

Ideas of the Group

CONTRARIWISE, note the social mindedness in the following:

Mr. A: Let's get *all the ideas of the group*.

Mr. B: Did you mean . . . (attempting to understand the other fellow's point of view *before presenting his own*.)

Mr. A's adoption of Mr. B's idea.

Miss E's asking Mr. D: "What do you think of Mr. B's suggestion?" (to get his idea *before presenting a different idea*).

The action in the chairman's ruling Mr. J *out of order* because he was not conforming to the adopted purpose, at the same time *helping him get his contribution before the group* effectively.

The chairman's use of informal methods, with constant checks to make sure he is *interpreting the group will correctly*.

Mr. J's justification of his motion as an emergency measure.

The group assignment of its next lesson as a logical outgrowth of its day's experiences.

Difficulties

WHEN individuals first begin to practice social cooperation, they tend to feel restricted and inhibited in a variety of ways. They miss the "freedom" (which is really license) to say whatever comes into their heads without stopping to consider whether it is an appropriate time for expression and whether it is a real contribution to group purposes or not. Social cooperation demands:

1. That each member adopt *as his own* the group purpose and *hold himself* to it by *censoring* each impulse and *inhibiting* those which do not further the group purpose.

2. That under such censorship each member think and act *creatively* and *aggressively* at each instant of time, but *contribute* the results of his thinking only at appropriate times.

3. That each member submit his ideas and suggestions to the group with full recognition that decision *rests with the group*. One should think of himself as an *organ* of the group and *not as the whole group*. Subordination of ego to group ego is absolutely essential. Each member must desire to *help the group mind* to think, to decide, to act.

4. That there be constant opportunity for *revelation of the group mind and will*, with equally constant attempts to *assist minority interests* achieve their purposes through action acceptable to the majority.

Self Discipline in Meetings

IN RETURN for the effort at self-discipline and self-control which social cooperation involves, one receives dividends of enriched understanding, intense stimuli to creative thinking, instant and appreciative recognition of each creative contribution, satisfying awareness of rich increases in friendship and harmony. Competitive cooperation is divisive; social cooperation is integrating.

One final warning must be given. There is a natural antithesis between growth and achievement. When the emergency is high, and the emphasis is on *achievement*, competitive methods are best. When the emergency is low, and the emphasis is upon *growth and progress*, social cooperation is best. Once a vision of social unity has been achieved, however, it will be found that *even in emergencies*, competitive methods may be employed without necessarily sacrificing the cooperative attitudes and unities.

You will find it to your great advantage in both your private and professional life to prepare yourself to use cooperative techniques effectually.

Those interested in making a further study of the work of Dr. Curtis, and his associates, are referred to "Cooperation, Its Nature, Evolution and Practice", by S. A. Curtis. (A mimeographed report obtainable from Brumfield and Brumfield, Ann Arbor, Mich. Price 50¢.) The National Educational Association has also published a booklet, entitled "Teachers and Cooperation", prepared by a Committee headed by Dr. Curtis. This contains a bibliography. It may be obtained by writing Dr. Curtis. (Price 25¢.)

V. Sound and Fury

GOOD God, what'll happen next? Why, here are union negotiators being accused of calling a management unfair, illogical and liars!

It was M who charged the Guild with that. "I'm sick and tired of being told every time I open my mouth that I'm unfair, being told I'm illogical, being told I'm a God damn liar!"

Why, it just looks as if it's getting so that these old established privileges of a management are beginning to trouble the management.

About the unfairness and the illogic of the management, a glance at the transcript of Wednesday's negotiations gives a clearer picture than this report can do. Look it over. But nobody called M a God damn liar. Or even a liar, for that matter.

Alleged Provocation

OF COURSE M's provocation was great. The Guild was trying to get higher minimums for the Commercial Department.

The Guild had informed M quite courteously, that wage minimums in the commercial division were in many respects the lowest in New York, and that the management system of lumping such people as responsible bookkeepers and paying tellers in classifications and at wage minimums far below their merits should be corrected. "We propose that bookkeepers and pay clerks should have minimum wages more in accord with the responsibilities of their jobs," K had remarked. "It's an injustice for a bookkeeper to be subject to a \$31 minimum."

The "classifications" which the Guild Unit had drawn up with regard to employes in the commercial department were not iron-clad, the Guild negotiators pointed out, but were there for purposes of simplifying bargaining on wages.

M would have no part of any new "classifications." The three classifications set up in last year's contracts were too many, in his opinion. "Any clerk when he starts is green," he said. "A beginner is a beginner."

"Yet," said K, "you have agreed—in regard to the editorial side—that a copy boy starts at one figure and a cub reporter at another. They are both green when they start."

Argument Develops

M POUTED. Why mess up the editorial department with his sacred commercial department, he would like to know. No new "classifications." Certainly not in the contract.

"It isn't possible," said K, "for you to stand out against the world while all the other papers agree that there are distinctions which can be drawn on paper in

a contract." That was when M went off the deep end. There was calm, later. At that point K said, "I still don't see why so much heat develops when we discuss Commercial Department minimums."

"There is no more difficult a class to define than the clerical classifications," said M, reproachfully.

"If it were a simple difficulty why do you approach it with such emotion?" K inquired.

"You haven't changed my opinion," said M.

K said very gently: "God knows what will change your opinion." He had pointed out that the minimums listed for Commercial Department employees "failed to reflect in any degree the real differentials of work in the departments," and offered to prove it "by any contract in the city." "We are here now," he continued, "with lots of new experience—which we have learned in the usual school—and we are here to make a modest advance. In so far as minimums are concerned we are aware that in many cases those are the lowest in the city."

"We are not being dogmatic about it," said K. "On the other hand, we don't expect you to be dogmatic." At the end he asked, "How shall we proceed?"

M seemed pretty exhausted. With dignity he responded, "There is nothing to proceed on as far as classifications are concerned."

"Then," K asked, "may we discuss the minimums?"

Exhaustion Leads to Adjournment

SOMETHING seemed to go out of M. In a strangled voice, "I suggest," he gasped, "that we adjourn."

So ended the first phase of the great battle of the Commercial Department minimums. The point was clearly established that M, regardless of the primitive status of minimums in his favorite department compared with other contracts, regardless of the logic of the Guild proposal to try to reflect "real differentials of work" through classification of services and minimums, seemed to prefer to curse himself into a fury rather than to argue on the merits. On which, of course, he couldn't win.

Analysis of Cooperative Elements

THERE was only one other moment when M's temperament might have embarrassed his colleagues as it did others in attendance. That was when he told Bill U, Guild negotiator, that he was "God damn sick" of his "line of chatter." Otherwise the day's negotiations were conducted with due regard to the usual standards of civility.

They began, indeed, in an attitude of harmony. On the Guild proposal for advance consultation on the part of the management with the Unit on discharges before they occur M agreed that this might possibly be worked out.

There was a useful and constructive discussion of the question of a clause in the

contract to guard the Unit from the possibility of being obliged to cross picket lines and otherwise consort with strike-breakers. There was a friendly exploratory discussion of no-economy firings. The management is still considering the Guild proposal of job guarantees in the event of a national emergency (such as war). A solution of the question of compensation for tabulators used interchangeably on the Curb-Bond and the Big Board was practically agreed upon. It seemed that something might be done as regards editorial "interchangeability," this field having been narrowed down to two cases at the moment.

Sunny weather vanished with the opening of discussion of minimums in the Commercial Department. This was holy ground, mates, barred from the impious tread of advocates of better standards. It will, however, be invaded again Monday afternoon and evening and Commercial Department employees will find it fascinating.

The Air Hygiene Foundation, with the U. S. Public Health Service, and the American Association of Industrial Physicians and Surgeons has Made Plans for a Campaign to Improve Industrial Health, Similar to the "Safety First" Movement.

Industrial Health Agencies

By W. J. McCONNELL, M.D.

Metropolitan Life Insurance Co.,
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INDEPENDENT agencies engaged in industrial health work may be classified into general groups of private foundations and national associations, universities, trade associations, insurance carriers, industrial and mercantile establishments, and labor groups.

The Air Hygiene Foundation

THE Air Hygiene Foundation of America, Inc., is a non-profit organization supported by the industries and dedicated to the advancement of industrial health through the study of occupational diseases. Research projects and studies supported by the foundation are in progress at a number of institutions. The foundation has surveyed medical, engineering and legal phases of current occupational disease problems and has developed an exhaustive bibliography and data file on occupational diseases, enabling the organization to serve as a clearing house of information on the subject. Abstracts of current occupational disease literature are issued monthly. Three professional committees, medical, preventive engineering, and legal, each composed of specialists in their particular fields, are maintained by the foundation.

The American Association of Industrial Physicians and Surgeons was organized in Detroit twenty-four years ago. Scientific exhibits of interest to the industrial physician are features of the annual meeting. A committee has under consideration a field survey of plant dispensary equipment to determine to what extent plant medical equipment can be standardized and what are the approximate costs of adequately equipping plant dispensaries of various sizes.

The American College of Surgeons does excellent work through its Committee on Industrial Medicine and Traumatic Surgery.

American Medical Association

THE American Medical Association has always published in THE JOURNAL information in the field of industrial health, but emphasis was given the subject a decade ago through the organization of the Section on Preventive and Industrial Medicine and Public Health. The Association authorized in June 1937 the organization of a Council on Industrial Health as a standing committee of the Board of Trustees. The Council was organized in December 1937 and has developed a working organization through the appointment of a secretary and the creation of official committees.

The American Public Health Association for twenty-five years has engaged in the study of a wide variety of public health subjects through the Industrial Hygiene Section, which is one of ten sections of the association.

The American Society of Heating and Ventilating Engineers, through its research laboratory, for a number of years has been conducting studies on the effects of high temperatures and various humidities on workmen. The laboratory recently has studied the reactions of different groups of office workers to air conditioning. A committee of the society is engaged in a study of high humidities such as are found in the textile industries. A joint committee of the society and of the American Society of Refrigerating Engineers has drawn up a code of recommended minimum requirements for comfort air conditioning. Another committee of the society and the U. S. Weather Bureau are conducting a study at the present time for the purpose of establishing weather design factors which may be useful in the design and operation of air conditioning systems.

American Standards Association

THE American Standards Association is a federation of national associations and governmental departments. It serves as a clearing house through which industrial, technical and governmental groups develop and coordinate their standardization programs in the interests of economy, looking forward toward the development of a single, consistent set of national standards. It is the recognized national standardizing agency. Any organization with standards which it feels would be more effective if approved as American standards may present its standards to the association for approval. This association initiates projects in the field of industrial health only when a specific request has been received and after the request has been investigated and approved by the standards council of the association. About 400 standards and safety codes have thus far been approved. The association is developing a safety code for work in compressed air. A code on electroplating is in draft form. The association's reports on "Fundamentals Relating to the Design and

Operation of Exhaust Systems" was the first document of its kind to be prepared. Other subcommittees have been organized to develop standards for rock drilling, grinding, buffing and polishing and similar subjects, with particular relation to the use of exhaust systems. An important activity in the field of industrial health is the work of the Sectional Committee on Allowable Concentrations of Toxic Dusts and Gases.

Illuminating Engineers

THE Illuminating Engineering Society was organized in 1906 for the advancement of the theory and practice of illuminating engineering. Its chief contribution to the field of industrial health lies in its code of lighting for factories, mills and other work places. This code has been officially approved as an "American standard" by the American Standards Association. The society is engaged at the present time in preparing good lighting practices for specific industries.

The National Safety Council is interested primarily in industrial and public safety. The council's booklets "The Healthy Worker" and "Safeguarding Women in Industry" have had wide distribution. The *National Safety News*, a monthly paper, carries an industrial health section.

The National Tuberculosis Association, through a number of local organizations, have included at one time or another among other activities, an industrial health program.

Saranac Laboratory

THE Saranac Laboratory for the Study of Tuberculosis undertakes research studies sponsored by the Trudeau Foundation. They are coordinated with clinical, roentgenologic and engineering field studies in industries in which dust and tuberculosis constitute an occupational hazard. Animal experimentation is used to test hypotheses formulated from field data to explain peculiar manifestations of disease and their causation. The problems of study at present fall into two groups, one which concerns the effects of dust alone and a second in which alterations in susceptibility to tuberculosis are of primary interest. While field investigations of certain industries are conducted for the confidential information of those concerned, the many research studies issued by the laboratory and addresses by the members of the laboratory staff are given wide circulation.

The Industrial Health Conservancy Laboratories was established on a fee basis to serve industry in all health problems relating to workers and working conditions. Organized in 1920, it is the oldest privately maintained organization of its kind in the United States. Its field of activity has covered such subjects as industrial intoxications, occupational diseases, industrial hygiene, industrial epidemics, medical organization and authoritative testimony. Three types of services are offered to industry: membership services, retainer services, and special and miscellaneous

SERVICES.—The *Information* issues a booklet describing these services and kindred matters.

Among the independent agencies which are not only conducting research and field investigations in the industrial hygiene field but are offering courses of instruction in industrial hygiene to students and graduates are a number of the universities in every section of the country.

The American Foundrymen's Association's efforts in the field of industrial health are directed toward the development of good practices for the foundry industry and the collection of information helpful in formulating codes for the industry. The Industrial Hygiene Codes Committee of this organization has so far published three good practices reports and is engaged in preparing others.

N. A. M. Committee

THE National Association of Manufacturers' Committee on Healthful Working Conditions, recently organized, is interested for the present in the coordination of the best practices in industrial medicine in an effort to adapt them to the varying types of manufacturing plants, and the "selling" of good industrial practices to the industrialists of the country.

The Portland Cement Association had conducted an anticold campaign among the employees of member plants and at present is providing funds for a dust-health study of the cement industry.

Another group of independent agencies actively interested in the promotion of industrial health work is the insurance group. A number of the compensation carriers maintain a laboratory of industrial hygiene for the study of existing industrial health hazards and of measures for controlling them in the plants of the industries which they insure under their workmen's compensation policies. A partial list, at least, of the compensation companies maintaining industrial hygiene laboratories are the Aetna Life of Hartford, Conn., the Employers Liability of Boston, the Employers Mutual Liability of Wausau, Wis. (laboratory at Milwaukee), Fidelity and Casualty of New York, Liberty Mutual of Boston, Maryland Casualty of Baltimore, Michigan Mutual Liability of Detroit, Travelers of Hartford, Conn., and the Zurich General Accident Liability of Chicago.

DuPont Institute

THE largest group of independent agencies whose activities in the field of industrial health are directed particularly toward safeguarding the health of workmen is the employer group. The duPont organization has erected an institute known as the Haskell Laboratory of Industrial Toxicology, the staff of which determines the toxicity of the many chemical products manufactured by the organization and recommends safe methods of employing them in industrial processes. The Union Carbon and Carbide Chemical Corporation recently has begun a study of the toxicity

of some of its products. Many other organizations have established industrial hygiene laboratories for the study and prevention of health hazards encountered in their respective plants. These services are all supplementary to well rounded health programs carried out in each subsidiary of the corporation.

Unique features of the medical program of the American Telephone and Telegraph Company are the general health course and the nutrition course for women, with certain follow-up activities, and the course in safety and first aid for men. Emphasis is placed on the development of proper health habits conducive to the maintenance of good health and to practical everyday methods of living.

Labor organizations, as a group of independent agencies, appear rather backward in any sustained efforts in the field of industrial health. Attempts have been made by labor organizations to promote health programs, but for some reason best known to themselves these programs were discontinued. A notable exception is the health service rendered by the Union Health Centre to its members. This organization for twenty-five years has acted as the Health Department of the International Ladies Garment Workers Union. With the exception of a single grant of \$20,000 from the Rosenwald Fund, the Union Health Centre has been supported from fees from its members. In 1934 it became an integral part of the International Union.

The group of independent consultants in industrial health is composed of eminent industrial physicians and engineers whose services are available to industrial organizations, large or small, that may require consultation service.

From the Proceedings of the First Annual Congress on Industrial Health of the American Medical Association. Published through the courtesy of the Journal of the American Medical Association.

If an Employer Gives an Appropriate Job Test to a Group of Applicants, What are the Odds that Those Who Score Above Average will Prove at Least Somewhat Better on the Job for Which They are Hired? Sometimes Ten to One.

Aptitude Testing

BY CHARLES A. DRAKE

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INDUSTRIAL psychologists should get away from dependence upon standardized tests that were originally designed for purposes other than factory work. They should learn to design their own tests to fit the requirements revealed by adequate psychological job analyses. They should work closely with the industrial engineers and methods specialists, machine designers, tool-and-fixture designers, and others in the organization, including especially the Personnel Manager and his staff.

They should not attempt to be a super-personnel department or to usurp the functions that belong to other staff specialists. They should use pencil-and-paper tests with great caution and only sparingly, replacing them with other types of performance tests wherever possible. And they should declare their independence of the coefficient of correlation, the regression-weighted battery, and other impedimenta of academic psychology.

Criticism of Present Testing

WHEN aptitude testing programs in industry have failed, as some of them are alleged to have done, such failure is almost invariably traceable to either or both of two causes: inappropriate tests were used, or improper techniques were employed. The psychologists doing industrial testing are almost without exception carrying on the old academic psychological tradition of applying a battery of standardized tests, correlating the test scores with some criterion of success on the job, and identifying the best combination of these tests by statistical techniques.

It is our contention that the whole procedure is outmoded, time-wasting, and

unnecessarily laborious. The choice of the initial battery is fortuitous and unscientific, depending upon highly subjective factors in the selector. The criterion chosen is not always the best available for the purpose intended. And the correlation procedure should be used sparingly, if at all, usually for the edification of other academic psychologists who prefer the broader generalizations.

Personnel Managers Eager for Tests

VERY progressive personnel manager is eager to have the assistance of aptitude tests in selecting people for the jobs he has to fill. He is usually not so situated that he can design his own tests, and he is impatient with the cumbersome and costly research techniques used by many of the psychologists who have reported their work. Moreover, he wants tests that can be quickly administered and scored by his regular staff, and results that can be interpreted without regression weightings and coefficients of correlation.

Two years ago, in reporting our exploratory work at the Eagle Pencil Company in the design and application of aptitude tests (1), we gave an exposition of the eight steps that seemed to be required in designing one or more performance tests to fit a particular job. This was a pioneering effort and necessarily crude. Our best test, of the nine reported, correlated .60 with a reliable criterion, but the test was demonstrably better for selection purposes than this figure indicates. In fact, the test was doing so well what the management wanted it to do—not what the psychologist wanted it to do—that we thereafter gave scant attention to correlations.

Test Results

MANAGEMENT is primarily interested in identifying at the earliest possible moment, preferably prior to hiring, the individuals who can not make the grade—who can not reach standard within a reasonable time, or who can never attain the standard. Management is also interested in selecting the individuals of highest aptitude, but this aspect of selection involves another consideration that must be left for later treatment. Let us examine the differentiating ability of one aptitude test for purposes of illustration.

Table No. 1 shows the distribution of time-scores for 373 inexperienced applicants for mechanical assembly jobs together with the scores of a sample of 40 experienced operators on such jobs. The last column shows in parentheses the average rankings of these 40 experienced operators by their foreman, rankings based primarily on the foreman's knowledge of their piece-rate earnings.

The foreman stated that he would be glad to drop or transfer the last nine in his list, those numbered from 32 to 40. Of these last nine the test identified six of the poorest seven, Numbers 34 to 39, in that order. No. 40 was a disciplinary case in the shop although ranking above average in the test. No. 31, highest on the test, was emotionally unstable, irregular in attendance, impudent, and low in earnings.

Of the 14 operators beyond the critical score, which was set at 169 seconds, 12 were in the lower half of the foreman's list, the two exceptions, Numbers 16 and 18, being close to his median position. Among the 26 operators scoring within the critical score limit there were only two, Numbers 32 and 40, that the foreman "would be glad to drop or transfer." A general correlation coefficient would obscure the foregoing differentiation.

TABLE
Org. Based List

ORGANIZATION		FOREMAN'S RANKED LIST	
TIME	NUMBER	TIME	NUMBER
160-169	12	160-169	3
170-179	10	170-179	7, 4
180-189	8	180-189	6, 1, 12, 13, 21, 29
190-199	6	190-199	1, 3, 8, 11, 14, 23, 3, 32, 4
200-209	4	200-209	5, 2, 9, 14, 17, 19, 23, 24
210-219	3	210-219	20, 22, 25, 33
220-229	2	220-229	8, 2
230-239	1	230-239	17, 7, 31, 34
240-249	1	240-249	31
250-259	1	250-259	37
260-269	1	260-269	38
270-279	1	270-279	39

Now let us consider the working conditions that affect the rankings in this assembly department, particularly as they affect the best operators. In a Training Department set up in connection with the testing program, removed from the assembly department but operating with its own tools and fixtures and under constant and close supervision and time-study control and check, both new employees and some old ones were given two weeks of intensive training. Certain operators trained to a maximum daily output of 150 gross of the product, and to a sustained daily rate of 90 gross, were sent to the assembly department at the end of the training period. Subsequently the daily output of these operators declined to the 50 gross which was the usual output of the older operators in the department. Why did this take place?

Pressure Applied to Hold Down Output

INVESTIGATION disclosed that pressure was applied by the older operators to hold down production. Although unions are sometimes accused of such practices, this plant was non-union. Clearly the excellence of the best operators could not, under such conditions, be reflected in the rankings and in the piece-rate earnings upon which such rankings were based—another argument against the validity of a correlation coefficient in such a situation.

There was still another complicating factor. The operators in this department

not only assembled the product but also, in the course of the process, inspected it. The manual dexterity test did not measure inspection ability, although the criterion based on earnings undoubtedly included the effect of this ability in some unknown amount. Such inspection ability depends upon visual perception as a mental process.

Eye Examinations

WE HAVE given expositions elsewhere of the results of attempts to measure the visual perceptual process and to relate such measurements to production. It is known that the eye examinations included in the usual physical examinations are quite inadequate as a basis from which inspection ability can be inferred. While certain defects of vision preclude effective inspection, perfect eyesight does not guarantee perceptual efficiency. A wide normal distribution of scores on a visual perception test results from the measurement of persons whose eye examinations are reported as normal.

Introduction of a visual perception test in the selection procedure is imperative under such circumstances. The problem of weighting such a test as a part of a battery is quite insoluble by statistical techniques in the face of working conditions of the sort related above. The practical safeguard in the selection process is to accept only applicants for assembly-inspection jobs who have high measured ability in visual perception.

One is often misled, however, in his observations of the amount of visual perception involved in the inspection process. Close study of the assembly operators in the foregoing sample of 40 indicated that some were depending largely upon touch and upon kinesthetic perception although the standard job instructions called for visual inspection. Even eye-movements themselves may be merely habitual and perfunctory and, consequently, quite deceptive in analyzing the job.

Tests for Touch

MOST persons in industrial work have observed jobs in which the operators were required to use touch, the muscle or kinesthetic sense, and even hearing in the inspection of the product. Aptitude tests must be designed to measure the perceptions called for in such work. How utterly futile it would be to attempt to test tea tasters or perfumers without suitable instruments in the taste and smell areas! The situation in industrial inspection generally differs from these only in degree. Yet we are familiar with instances in which testers have applied batteries of tests for particular jobs without including a single test for one or more of the special perceptions required in the work.

When a job requires that the operator stand at his work and that he make body movements and full-arm movements, a test performed in the standing position and involving body and arm movements is an obvious requirement. One should not be

disappointed to find that a battery of any number of pencil and paper tests gives a low multiple correlation with some criterion of success on the job in such a situation. Any other result would arouse our suspicions about the tests, the criterion, or the technique.

Tests for Accident Proneness

AGAIN, the tests used may be of such character that they combine in unknown amounts such disparate abilities as attention, perception, and motor manipulation, all in one or more of the tests. Thus the three best tests found in the accident-proneness investigations sponsored by the British Industrial Fatigue Research Board (3) presented inextricable combinations of these three factors in their several scores. Such a situation may account in large measure for the moderate, but encouraging, relations found between their test scores and the accident records.

In our own experience (4) the *differences* between scores on perception tests and motor tests were more highly predictive of accident-proneness than were the scores when combined. Similar discrepancies between levels of performance on several tests may also be highly diagnostic of abilities called for on industrial jobs, but this hypothesis must be investigated further.

The ordinary tests available to psychologists are also wholly inadequate for dual operations in which the two hands perform two identical operations simultaneously. Our experiments (5) indicate a normal distribution of this ability, with only about one person in five possessing it in such degree that he should be employed on dual-operation jobs. The test results also indicate that as the operation cycle increases in length and as the positioning or fitting element becomes more prominent, the economics achieved by dual operation tend to be sharply reduced or even lost altogether.

Dual Operation Jobs

WE HAVE seen one-hand performance and one-hand pencil-and-paper tests wholly composing the battery applied to operators on dual-operation jobs, applied by psychologists who seemed blissfully ignorant of the fact that the main ability involved constituted an area of marked individual differences. The poor results attained in such circumstances reflect upon the insight and professional competence of all of us, and serve to enhance the low esteem in which our profession is held by some disappointed but intensely practical personnel managers.

We are now convinced that the best basis for test construction is that afforded by time and motion analyses of the job for which the test is to be designed. Lacking suitable time-study figures we prefer a motion picture of the operation with a Gilbreth clock or other timing device showing, thus, permitting a micro-motion analysis to be made. These procedures tie the psychological work in closely with the methods—engineering, tool and fixture design, job standardization, rate setting, and the other aspects of industrial engineering in the plant—a very desirable feature.

In the test installation made for Johnson and Johnson last summer (1939), the tests were directly designed from the time study analyses furnished by the industrial engineer. The results were highly satisfactory. The same procedure will be used, so far as it is possible to obtain the basic time study data, in the further work for this company in its two new plants in 1940. Where a new job is to be set up in the new plants, with changed methods and a different cycle of operation, the main characteristics of the job will be determined and one or more tests will be designed to embody these characteristics. A test designed with sufficient flexibility in operation can be readily adapted to minor changes in the job set-up.

Cost of Tests

IN THE matter of costs, no inconsiderable item when selection by test is contemplated, the difference between the older and the newer technique is enormous. The testing time and computation time for the former may be very great, thus bringing the cost per job to prohibitive figures. For the latter a few performance tests that can be used over and over for hundreds of applicants without replacement or repair will be required and a testing time that should not exceed one hour per person, as a rule. The known difference in costs, in one situation that cannot now be more specifically designated, is in the ratio of 6 to 1, favoring the newer technique.

The design of special tests directly from the time and motion analysis data eliminates much of the trial-and-error experimentation that characterizes the older test-battery technique. As the designer gains insight and skill, he can practically eliminate trial-and-error. His basic data from which the tests are designed also affords a safeguard against overlooking some important but obscure element in the operation cycle.

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Foremen's Union Finale

BY IRA B. CROSS, JR.

AFTER the article on the C.I.O. foremen's union in the February issue of THE PERSONNEL JOURNAL had gone to press, the author received a letter from one of the officers, which described the demise of the Foremen and Supervisors Local Industrial Union, No. 918.

In the final months of 1939, this union had filed with the National Labor Relations Board at least three cases which charged illegal discrimination against its members and requested certification of this group as a *bona fide* labor union. The Board declined to pass judgment on these charges shortly after the first of the year, thus avoiding a formal decision on the legal status of the foremen's union under the terms of the Wagner Act. Edwin Smith, member of the Board, in a speech before a group of students at the Harvard Law School in March, refused to publicly discuss the reasons underlying the Board's behavior on this issue.

Possible Reasons for N.L.R.B. Stand

THERE is no question but that the N.L.R.B. has been placed on the defensive as a result of the findings of the Smith House investigating committee. It is conceivable that if a formal hearing were accorded these cases which involved the legal status of the foremen's union, a decision favorable to the union might be forthcoming. Such an award, at this time, and in the face of the unfavorable publicity the foremen's group received during the Chrysler strike, might constitute a powerful weapon in the hands of the foes of the Wagner Act in their attack on the Board. This may be a partial answer to the peculiar fact that these charges were not reviewed.

In the face of the Board's stand, it was unanimously voted to dissolve the organization as of January 31st at a general membership meeting of the foremen's union, held on February tenth. It was further decided to close the books of the union on March 15th, and return the charter and seal to the C.I.O. headquarters in Washington.

The comment of a man who was closely allied with this unorthodox labor union clearly indicates the attitude of these Detroit foremen, who many have erroneously regarded as agents of the C.I.O. in a plot to gain control of both sides of the bargaining table. This man said, "The experiment is finished. All we do now is wait for the results. If management heeds the lesson as I hope they will, then our fight will not have been in vain. If they are half as smart as I have been told they are, there will never again be the need for a foremen's union. Here's hoping!"

Erratum: After the foremen's union at the Kelsey-Hayes plant was chartered, the company did not rescind the wage cut, as was stated in the original article. The plan to shift the foremen from salaried positions to hourly rated jobs, which gave the major impetus to organization, was abandoned, however, at the behest of this newly-formed union.

Acknowledgment

Much of the materials in an article entitled "Industrial Psychology," appearing in Volume 17, January 1939 issue of this Journal (pp. 274-278) was taken verbatim, or with slight change, from the book *Industrial Psychology* written by Morris S. Viteles and published by W. W. Norton & Company. This includes parts of pages 410, 413, 423, 425, 428, 429, 430, 499 of that text. No acknowledgment was made either to the author of the book or to the publisher. The writer hereby admits his error in reproducing, as though it were original material, and without permission of acknowledgment, sections of the text named above, and expresses his regrets to the author, Morris S. Viteles and to the publisher, W. W. Norton & Company, Inc.

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Engineering and Agriculture.*

The Editor of the Personnel Journal regrets that the article referred to above, in which there were definite references to the work of others, was published without suitable acknowledgment.

Editor,
PERSONNEL JOURNAL

Book Reviews

Book Review Editor, MR. EVERETT VAN EVERY

University of California, Berkeley, Cal.

RETAIL TRAINING IN PRINCIPLE & PRACTICE

By Helena Marsh Lester. New York: Harper & Brothers, 1940. 174 pp.: \$2.50

"Once upon a time they were all done by the same person—the owner!"

This much can be said of all the divisions of modern business management, but especially can it be emphasized in employment, supervision and training. Here we are concerned with retail training—the function that reflects the personality and success of an organization quicker and more indelibly than any other phase of operations.

Mrs. Lester points out that training in retail stores today is the key to functional management. She advocates a decentralized program by which is meant the distribution of various training tasks to those persons in the organization best suited to do them in preference to employing a professional teaching staff. A good store manager will give careful consideration to who should train, what experience and abilities are needed in training and what coordination and authority are required.

Training is a selling job, and initial training is an endeavor to sell the policies, methods, facts and standards of the organization. "Training proceeds from instruction for the job, and then to instruction and development for the job ahead. If one is so fortunate as to have reached the top in his field, where training can apparently do little for him, then it is his turn and responsibility to contribute to the development of others in the field."

This book is recommended for top executives in retailing as well as the training people, because only with their initiative and hearty approval can a really effective training program be set up and maintained. The training plans and methods described will apply equally well to small speciality shops and large department stores. The chapters on Development Training, Training for Advancement, and Training Nonselling Employees are especially good sources of practical suggestions. The appendix is devoted to outlining the duties of department heads and an excellent bibliography of other store training material.

The retail executive will recognize this book as a good check list of training practices and a valuable source of accumulated experiences.

MANUAL FOR EXECUTIVES & FOREMEN

By Erwin Haskell Schell and Frank Forster Gilmore. New York: The McGraw-Hill Book Company, 1939, 185 pp.: \$2.00

Where the companion volume, "The Technique of Executive Control," is concerned with human relations, this book explores the field of operating methods and controls in manufacturing processes. The operating men, for whom this work

is primarily intended, are shown how to develop better ways of controlling quality, quantity, equipment and stores.

The authors are management engineers and their material is presented in simple, direct style as if taken from the pages of their shop notes. They show how consultants can locate desired changes that would not seem apparent to the operating executive, and yet the latter is far better equipped to make such improvements at the lowest possible costs.

"The reason why outside consultants can come into a company and get action is not that they are paid a large fee and therefore are listened to by top management, or that they carry the reputation of being authorities. They get action because they assemble facts, decide upon a solution, present their ideas in clear form and follow through until they get an acceptance or a rejection."

If you would know how management consultants work, how to act as your own management engineer or how to work effectively and fully with specialists in business management, you may well find this small book a valuable addition to your library.

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Number 10.

A Recent Survey by FORTUNE, Reported in their Current Issue, Showed that Very Many People Think that One of the Most Important Aids in the Solution of America's Economic Problem is More Training of Skilled Workers.

Management's Approach to Job Training

BY EUGENE B. MAPEL

Gary Sheet and Tin Mills,
Carnegie-Illinois Steel Corporation,
Gary, Ind.

FEW individuals would deny that, with the industrial competition of today, the old "pick-up" method of training is inadequate to cope with present conditions. The result has been that all industries have developed various methods of training employees in order that they might be able to increase the efficiency of their working force with a minimum of expense. The purpose of this monograph is to outline, for the benefit of those who may be interested, the philosophy underlying the program and the procedure in training.

Training Assistants for Foremen

A PROPERLY organized program of job training may take several forms, the most common of which is job training instruction by the operating foremen. For the purpose of this resumé, however, we refer only to a specific experimental program, whereby selected trainers working under the supervision of departmental superintendents augment the instruction of foremen, given to employees in need of up-grading, and in those divisions where minor changes in method may result in improved employee efficiency.

The philosophy underlying this job training program is that the foreman will be provided with skilled assistance, which will make it possible for him to fulfill his responsibilities. It should be clearly understood that there is no intention to lessen in any degree the responsibility of the foreman for the training and safety of his men.

Probably the greatest stimulus to a job training program was provided by the

installation of the present merit rating system used in the plants of the Company. With the determination of the sub-marginal workers, we must offer more to the employee of long service, whose work has been unsatisfactory, than an encouraging word or a hint of criticism, if we are to expect an increase in his personal efficiency.

Selection of Trainers

IN 1938, a Training Council, composed of departmental superintendents, selected a group of twenty-five "potential job trainers." These men were selected on the basis of the following:

- a. Diversified experience on a variety of departmental operating units.
- b. Technical education and back-ground.
- c. Personality.
- d. Executive potentialities.

The result, following this method of selection, has been that practically all of the original group of twenty-five are considered capable of organizing instructional material, and of training both sub-marginal and the higher rated workmen.

Instruction of Job Trainers

THE job trainers selected by the Training Council were placed in a class under the leadership of a professor of the state university, in which they have been given, up to the present time, a total of sixty-eight hours of class-room instruction in the techniques of training employees.

These instructions were developed to include the following:

1. Organization of instructional material.
2. Techniques of instruction:
 - a. Preparing the workers for instruction in a new method.
 - b. Introducing the new method through instruction.
 - c. Testing the ability of worker to apply the method effectively.
 - d. Supervising application of method.
3. Job analysis and sequential steps in performing operating functions.
 - a. Manipulative skill.
 - b. Job functions in sequence.
 - c. Related technical knowledge.
 - d. Safety factors.
4. Job simplification.
5. Principles of time study.
6. Techniques of conference leadership.
7. Methods of handling personnel problems:
 - a. Instructions in company policy.
 - b. Procedure in handling grievances.
 - c. Techniques in determining causes of employee dissatisfaction.
 - d. Elements of industrial psychology.

8. Purposes of scientific management.
9. Incentive plans and wage payment systems.
10. Variable budgetary control.
11. Methods of computing comparative productiveness.
12. Report writing.

Installing the Program

BEFORE assignment to job training duties, trainers were given an orientation period varying from one to three weeks during which time they observed operations in the department to which they were assigned, analyzed the results of merit rating and determined, with the advice of departmental superintendents, those locations where the need for training was most pronounced.

As the problem presented itself in the plant, job training would follow one of three courses:

- Training in techniques of the next higher operating position.
- Diversified training on a variety of jobs.
- Re-training in connection with the employee's present job.

After carefully analyzing the needs, it was determined that the latter course offered the greatest possibilities for accomplishment in training at this time; however, in a few isolated cases employees have been trained in the operation of newly installed equipment or units, and invariably the results have been satisfactory. As a result of this experience the following plan was pursued in putting the general program into effect:

1. Job analyses were prepared by job trainers covering those occupations where training was to be done.
2. Employees were followed in training employees in sequential steps of operation.
3. Delay reports were utilized in determining the basis for training in the elimination of certain specific production delays.
4. Instructions, concerning individual deficiencies, were given to employees who were rated as sub-marginal.
5. Group conferences, covering related technical information pertinent to the job, were held for employees who voluntarily desired to attend on their own time. These included: a. Mechanics of operation. b. Order specifications. c. Quality standards.
The specific purposes of these conferences were:
 - a. To stimulate employees on production units to do more constructive thinking about the best method of performing their job, and to create among them a greater interest in their responsibilities.
 - b. To bring to light by group discussion certain differences of practices among operators, and thus tend to unify procedure.
 - c. To give the lower ranking men an opportunity to learn more about the principles of the particular operation being discussed.
6. Job Trainers analyzed unsafe practices resulting in injuries sustained by

MANAGEMENT'S APPROACH TO JOB TRAINING

the employees and hazards incidental to the employees' work. Safety training was then given to employees in the following manner:

- a. Visual safety education through the use of motion pictures and slides depicting unsafe practices.
- b. By informing employees of unsafe practices at time of occurrence.
- c. By developing safety consciousness through daily contacts.
- d. By preparation of safety questionnaires and other material for use of foremen and trainers in crew safety meetings.

Use of Merit Rating

TRAINERS were instructed in methods of analyzing merit ratings to determine personal characteristics of employees in need of further development.

An attempt was made to objectify these findings. In a majority of cases it was found that the tendency in ratings was for supervisors to rate employees either high or low on all factors, as for instance, an employee rated high on "Productivity" would also be rated high on "Safety" and all other factors in the rating scale. As a result of the analysis of ratings we did determine, however, that there was a very definite correlation between supervisors' ratings on "Overall Job Performance" and the employees' productivity as revealed in checking production reports, scrap reports and other quality and production records. Consequently trainers were able to segregate employees in performance groups, and concentrate on training those employees where the need for training was most pronounced.

Job trainers assisted foremen in interviewing employees in regard to their ratings and were informed, by foremen, of employee attitudes, grievances, production difficulties, etc. as revealed in interviews. This enabled trainers to more intelligently approach the problem of training the sub-marginal worker.

Responsibilities of Job Trainers

JOB trainers are responsible for their actions indirectly to the foreman on the crew to which they are assigned, and directly to the departmental superintendent. Another indirect responsibility is to the Training Council. This responsibility will, however, terminate after the formative stages of the program have been completed.

Reports of Activities

JOB trainers prepare either daily or weekly reports covering their activities. These reports are given to the departmental superintendent and a copy is forwarded to the plant director of training. In some cases monthly reports reviewing activities are prepared. However, these are not required.

The two purposes of the required report are to benefit the trainer and to inform the superintendent of his activities. We believe that to produce in writing, a formal statement of accomplishment demands a thoroughness of review not ordi-

narily undertaken. Consequently reporting activities will serve as an additional stimulus to the trainer.

Organization of Instructional Material

ALL job training activities are predicated on the theory that we must accurately determine where training is needed, and then determine the best methods of performing the job functions before we can train the worker correctly.

A comprehensive job analysis is usually sufficient to determine the best methods, if the trainer is experienced in performing the job, and is well schooled in methodology; however, in some instances this is not possible. To mention a specific problem where more research is required, there are approximately three hundred female employees in the plant engaged in inspecting and sorting. Only a hurried observation is necessary to convince the observer that there are practically as many different methods of sorting as there are employees performing this work.

Because of this problem, the professor has tested the employees in this department in the various component factors of the job, such as Visual Acuity, Manipulative Skill, Accuracy in Detecting Defects, and Speed in Reaction Time. These tests have made it possible to determine individual employee deficiencies, and a micro-motion analysis is being made of the workers' job functions in order that the best method may be determined.

As a result of this research, job trainers will know whom to train, how to train and what training should be given employees in this division.

Personnel Functions of Job Trainer

ONE by-product of the job trainers' activities which has not been heretofore mentioned is his assistance in personnel matters in the department. Although no attempt has been made to develop this function, it has been a natural outgrowth of job training because of the trainer's proximity to the worker; and his familiarity with both the employees' and employers' problems.

We believe that in the near future job trainers will be expected to do the following:

1. Recommend to the superintendent shifts in personnel for the purpose of increasing crew effectiveness.
2. Assist in supervising departmental personnel records.
3. Assist in adjustment of employee grievances.
4. Consult with the superintendent on cases of promotion, demotion, lay-off or transfer.
5. Assist in supervision of departmental educational and recreational activities.

The above list might be expanded materially; however, we consider that it is fairly representative of the type of service which will be required of "Job Trainers" as their individual growth warrants.

Methods of Checking Results Obtained

AS A part of the instruction given job trainers, they were taught to use variable budgetary control reports in checking the effectiveness of their training efforts. Other tools used for this purpose were: departmental production reports, semi-annual merit rating of employees, roll change and delay statistics reports, scrap percentages, and other standard reports used in quality comparisons.

Summary

WE MAY now briefly enumerate the results which we believe will be obtained from a carefully planned job training program:

1. Because of close supervision and definite job training we are in a better position to ascertain the ability and potentialities of new employees during their probationary period.
2. There will be an improved esprit de corps.
3. The mechanism is provided for bringing the unskilled, untrained, or poorly trained workers to the desired point of efficiency with a minimum of delay and expense.
4. It is possible to assign people to work for which they are best fitted.
5. It tends to promote standard practices in all parts of the shop and plant, and provides an excellent avenue for the plans of the industrial engineer.
6. It unearths potential mechanical or supervisory ability.
7. The mechanism is provided for giving the worker "on the job" instruction in safe practices, machine hazards, etc., which supplementing the foremen's efforts, should result in a reduction in the accident frequency rate.
8. It improves employee morale by encouraging a pride in workmanship.
9. Improvement in method will tend to reduce worker fatigue.
10. It will provide management with trained employees, to assist in the installation of management instruments, such as, Merit Rating, Budgetary Control, etc.
11. Excellent practical experience and education have been given job trainers to prepare them for more responsible supervisory positions.

A Recent Study of Electricians' Helpers Showed No Relation between Length of Experience and Knowledge of the Job, Indicating that Mere Exposure to the Work over a Period of Years does Not Guarantee the Absorption of Knowledge. Planned Training is Necessary.

Labor's Approach to Job Training

By PHILLIPS L. GARMAN

Director of Research
International Printing Pressmen
and Assistants' Union of North America
Pressmen's Home, Tenn.

THE International Printing Pressmen and Assistants' Union of North America is comprised of the men who operate the presses upon which practically every newspaper and most of the books, magazines, and other written material are printed. The printing industry is one in which, despite the technological developments of the last half century,—and in fact in many instances because of them,—a high degree of skill is required of the individual workers. And it is largely because of these highly specialized skills that the workers of the industry have organized themselves into trade unions along craft lines—pressmen, photo-engravers, stereotypers, electrotypers, compositors, and bookbinders.

Union Guarantees Skilled Worker Supply

UNIONS have, over a period of years, become widely accepted in the printing industry, and the union or "closed" shop is stipulated uniformly in the collective-bargaining contracts of the Pressmen's organization. In fact, there is no real issue over this matter any longer; and one reason for this is that the union's contracts guarantee that it will furnish the employer with an adequate supply of competent pressmen at all times (and the employer is accepted as the judge of competency). If the union fails to do so, the employer is entitled to procure men from any source he can. To complete the picture, it is only fair to point out that as a matter of fact employers rarely ever try to get men from other sources because they have learned over a period of time that the union is the best source of supply and that it religiously strives to live up to its responsibility of furnishing the industry with an adequate and competent supply of trained craftsmen.

The basic level of training for printing pressmen is that of the apprentice. But don't assume that the apprentice is a boy just out of high school with no specific training of any sort. For, in nearly every instance, before a worker can become an apprentice pressman, he must have served for at least two or three years in the pressroom either as an "assistant" pressman or as a general helper and must have proved his general adaptability to the work. Then when he becomes an actual apprentice, he is registered with the International Union and is required to take a detailed and carefully worked-out correspondence course covering a four-year period of instruction.

Union Examines Apprentices

THERE are separate courses for each of the four main types of printing presses, as well as several specialty courses to fit training needs in particular branches of printing. It may interest you to know that just this week plans are being consummated for special training in rotogravure work, made necessary by reason of the great increase in this type of printing in recent years.

The correspondence courses are carefully related to the actual work in the shop, in which the apprentices are supervised and assisted by the journeymen pressmen as well as by the foreman. Every local union has an educational committee that, four times yearly, conducts a detailed, theoretical, and practical examination of each apprentice. Usually the pressroom foreman is a member of the committee, but that is in his capacity as one of the most skillful members of the union rather than as an official representative of the employer.

Copies of the records of each apprentice in the correspondence courses and in the local examinations are filed with the local union, the International Union, and also the employer, although in most instances the latter does not take a very active interest in the apprenticeship program. A minimum of four years, and in many cases five, is served before an apprentice is entitled to a journeyman pressman's card in the union.

Cooperates in Employer Problems

IN CERTAIN of the larger cities, the apprentice-training program is carried on in part through schools run in conjunction with employers and local educational agencies, and the union has been glad to co-operate in these instances. Some of the larger employers in the printing industry are interested in instituting apprentice-training programs themselves, and in such cases the union gladly modifies its standard arrangements and co-operates in setting up special local programs on a joint basis.

One of the important and difficult problems that the apprenticeship program must needs meet is, in addition to insuring quality in the trained product, keeping some check upon the quantity that is turned out. Although the balance between

an adequate labor supply to meet peak production loads and restrictions enough to keep from saturating the labor market and causing unemployment is a delicate one, it has been reasonably well maintained. Despite the rather frequent occurrences upon which many employers have castigated unions in recent years for allegedly strangling the labor supply, there have been, to my knowledge, no such charges hurled at the Pressmen. Some 1,200 apprentices are registered and taking the correspondence courses at the present time.

There are many unions that have good, carefully worked out apprenticeship systems, although almost none have as excellent a correspondence course. Where the Pressmen's Union is entirely unique, however, is in its Technical Trade School. Established in 1912 and located at the union's headquarters at the town of Pressmen's Home, Tenn., the School is the only one of its kind, owned and operated by a labor organization for the benefit of its members and the industry in general.

School for Journeymen

THE Technical Trade School is what might be termed a "post-graduate" school, in which, in general, only journeyman pressmen practice and study. An important part of the School's function is to enable pressmen to keep pace with technological developments (which have been considerable) and to learn how to operate new machinery. Working every day in a printing establishment, a pressman has little opportunity to learn new techniques and processes, so that when a new press replaces the one he is working on, he may be out of a job. The resulting loss to the worker and to the industry can in large measure be obviated by a six-weeks to six-months intensive-training course on the new equipment at the Technical Trade School.

The School also provides pressmen with an opportunity to specialize in certain kinds of work, or to work on several kinds of presses in order to become all-round men. The instruction in the School, in order to be really effective, is of necessity of a highly personal nature, adapted to the stage of development, needs, and capacity of each individual student. The instructors are men of unusual ability, chosen for their technical knowledge and practical experience, as well as for their qualifications as teachers. Opportunity is provided for very high grades of work to be carried through all stages by the students themselves under conditions that are equivalent to actual shop production.

Under such highly intensive training, it can be seen that not many students can be handled at a time. The number of students who get what might be termed "post-graduate degrees" from the School is about 50 each year; but obviously they are real craftsmen, and their number can in no wise be compared with the numbers of "half-baked" graduates that are turned out of most of the other so-called schools of printing and who are incompetent to do anything more than to start into the industry as apprentices.



Trade School Graduates Become Executives

THE quality of the training provided by the Technical Trade School can be illustrated by the fact that well over half of its graduates have become executives. In fact, the School has achieved such a high reputation throughout the industry that many employers send their best men to it with a view to fitting them for supervisory positions. Manufacturers of printing presses and other equipment have generously co-operated with the union by loaning and donating equipment. They feel that the School is of distinct advantage to them as well as to the industry as a whole and are glad to have their products used for testing and demonstration purposes.

In connection with the School, the union maintains a service department that is not directly a part of its "training" system. It provides assistance to pressmen or to employers who experience production difficulties or who need information about new equipment and methods that will enable them to turn out certain kinds of work better or more economically. Thousands of requests for assistance of this sort have been handled by mail, and in more important instances the School's technical experts are sent all over the country to wrestle with problems right in the shop. This service has been given without charge to members of the union and to employers alike.

The official organ of the union is a monthly magazine, entitled *The American Pressman*, the major part of which is devoted to the discussion of technical problems. It is recognized as the leading magazine in the world in the field of pressroom technique and is an important factor in training the members of the union to be better craftsmen.

Newspaper Engineering Service

DESPITE the fact that it is not directly a part of the job-training system, another unique part of the union's contribution to the industry deserves mention. This is the Newspaper Engineering Service, established in 1924 and designed particularly to aid members and publishers in the newspaper industry. Now, about 400 newspapers are mailed daily to the union's headquarters. Each paper is carefully studied by the union's engineers. Printing virtues as well as defects are noted, and at regular intervals a letter of analysis and suggestions is sent to the production superintendent or to the pressroom foreman. In cases where defects are not otherwise remediable, a technician goes to the paper wherever it may be and stays on the job until the matter is satisfactorily disposed of.

Expansion of this free service has included assistance in planning construction of new plants, the overhauling of old machinery, and the installation of new equipment. In fact, some publishers have jokingly commented that the union has had such a large part in bringing about the purchase of new equipment of all sorts that it must be in league with the manufacturers!

Two Million Dollars Spent

HOWEVER that may be, the union has, over the past twenty-seven years, spent almost \$2,000,000 in its broad training and technical program—no small outlay for an organization of approximately 50,000 members.

The reasons why the Pressmen's Union has laid such emphasis on its training program are in the main twofold. The first reason we have already noted—the character of the industry with its premium upon highly specialized skills, and the importance of technological changes that have taken place.

The second reason lies in the character of the leadership of the union. The person who is, singly, most responsible for the policies of the Pressmen's Union is George L. Berry, its president without interruption since 1907. His vision and forceful leadership have made the union stand for efficiency and quality of production, and have earned him not only the devotion of the workers but also the respect of management in the printing industry. His able assistant and lieutenant has been Thomas E. Dunwoody, Director of the Technical Trade School, recognized as one of the leading authorities on presswork in the country.

These leaders can recall the time not so many years ago when many members of the union were actively opposed to the Technical Trade School as well as emphasis upon apprentice training. Pressmen, believing that this program would primarily benefit employers, failed to see why they should bear the cost; and it was only when the leaders of the union persisted and developed the educational program in such a way as to tie it up directly with the individual pressman's job and the amount of his pay check that the union members came to appreciate the benefits to themselves, the industry as a whole, and indirectly the general public as well.

What Should Other Unions Do?

IN SPITE of the experience of this union, it seems highly questionable whether most labor organizations should be expected to institute job-training programs for their own members. Take, for example, the case of a trade union in a mass-production industry, where the great majority of the workers are unskilled or semi-skilled. What responsibility does labor itself have for job training in such a situation? Very little, and certainly such situations are predominant in American industry and apparently are due to become increasingly so. Perhaps you disagree with me on this point; if so, I would certainly appreciate knowing just what you think labor's own training responsibility should be.

Cooperate with Management

AS FOR going along and even co-operating with management programs for job training, that is a different matter. There is no reason at all why, if the matter is approached properly, labor organizations should not co-operate with

management in these matters. But by the proper approach it is necessarily assumed that management will wholeheartedly and without qualification accept collective bargaining and all that it implies. When management accepts and deals with a union in an open and aboveboard fashion, it will be doing a mighty poor job of management if it can not "sell" the union on the importance of training the workers to be more efficient in contributing their share to industry.

Discussion of this general subject would be incomplete without calling attention to the fact that, historically, labor has been skeptical and suspicious of trade education. The reasons for this skepticism revolve around labor's inability to see wherein the training will produce immediate advantage to it in terms of dollars and cents, and suspicion that it is intended primarily to benefit employers. That there is some actual basis for this suspicion is evidenced by the number of instances in which trade-education programs have been carried on in indiscriminate fashion without regard for the actual requirements of industry, both with respect to the amount of available employment and the quality of the training needed.

There have been too many instances in which half-trained youths have been thrown onto the labor market of an industry that was already close to the saturation point, so that the resulting excess supply of labor resulted in decreased employment and remuneration for those who were already trying to make their living in the industry.

Intelligent Approach Now

IT is true that there have in recent years been some hopeful signs of a more intelligent approach to job training for workers. The State Universities are giving much aid in this. Help is also now coming from the federal government through the Department of Labor Federal Committee on Apprenticeship. It is significant that organized labor is represented on the Committee, and that in its work the Committee makes long and careful study of industrial conditions and needs before recommending any specific training program. The soundness of the Committee's approach is also evidenced by its care to obtain the approval and active participation of management and labor as well as public educational agencies in all programs that it pushes.

In programs of this sort, organized labor can and should participate, both for what it can contribute to, and for what it can derive from, job training. Even though, in view of the present unemployment and strained industrial conditions, it may not be wise to stress mass vocational education, it is apparent that specific training can be effective as an attack upon one of our most vital problems—the unemployment resulting from technological developments. Certainly we need to train workers who are displaced by such unemployment to give them new skills and an opportunity to earn their living in different industries, and some of this can be done through intelligent national planning.

Broad Training is Important

There is another type of training that is exceedingly vital to workers and to our entire national being, and which is innately part of the labor movement.

Perhaps even more than trade education, we need at present education for workers in the broader problems of industry (from management's point of view as well as labor's), economics, government, legislation, and history as well as the broader cultural subjects. Expansion of our educational facilities for adults along these lines is one of the most important aspects of labor's training program, and is a worthy undertaking for labor, management, and educational agencies alike.

This an address given at the most recent meeting of the Purdue University Industrial Personnel Institute.

We Talk Much about Labor Problems Created by Our Employees. Perhaps We Hold the Stick by the Wrong End. Should We not Try More, as This Company Apparently Does, to Develop Our Policies to Lessen Their Problems, and Aid Them in Those that Must Inevitably Remain for Them to Solve?

Hopes *and* Fears of A Worker

BY PATRICIA MCCARTY, EMPLOYEE

Real Silk Hosiery Mills, Inc.,
Indianapolis, Ind.

I WAS graduated from the George Washington High School in June, 1935, and was just over 18 years of age. There are four children in the family besides myself, and I am the oldest. I couldn't even think of going to college because my father didn't make very much, as carpentering was very uncertain. The family needed my help; so I began to look for a job. For a while it appeared as if I just wasn't going to find work.

Gets Job Through State Employment Office

EVERYWHERE I tried they either didn't need help or they wanted experienced help. During the time I was looking for work, a friend suggested to me that I put in an application at the Indiana State Employment Service, which I did. Still, that didn't bring any results. One day when I was feeling particularly low and discouraged, one of the neighbors came over and told me that the Indiana State Employment Service had called and asked her to tell me to report right away.

I certainly didn't waste any time getting there, either. The lady at the employment bureau told me that the Real Silk Hosiery Mills was hiring some girls to train as seamers and that she had selected me as a prospective applicant. She said that, if I was interested, she would give me an introduction card and I could see their employment manager. Was I interested? I should say I was.

Walking on air, and scared within an inch of my life, I started for Real Silk. When I arrived there, I had to show my introduction card to the watchman. He then directed me to the Employment Department. First I was requested to fill out an application blank and was interviewed by the man in the employment office.

The strangest thing to me about that interview was that he thoroughly inspected my hands. Never before was I so conscious of the fact that I did have hands, but he explained to me the extreme importance of shape and condition of hands in working with silk hosiery. Next I was subjected to what I believe they called a "manual dexterity" test. This test consisted of fitting a large number of small pegs into holes arranged in a square, and I was timed while I did so.

Tests Seem Silly

IT SEEMED a trifle silly to me, but it must have been important; so I put my best effort into it—a job was my goal. After completing this test, I was told I would be given an opportunity to learn seaming, the operation of seaming the hose up the back and across the sole of a silk stocking. I was tickled but a little dismayed when told that the wage to start would be \$8.00 a week.

This seemed a small amount when I needed money so badly; but the employment manager informed me that as soon as I became efficient enough, I would be placed on piece rate and my earnings should be greatly increased, according to my ability. I agreed to accept the job. However, I soon found out that I was by no means ready to start work.

I was turned over to a young lady who filled out an employment slip. These forms were made out in triplicate.

Next, I moved on to the company's medical department. Here I was greeted by a nurse in uniform who gave me the third degree regarding my physical condition, past and present. The answers I gave were recorded on a chart. When she had finished, she turned me and my chart over to the doctor. He gave me a thorough "going-over"—my heart, lungs, blood pressure, throat, teeth, and lastly eyes were examined.

The doctor told me that I was O.K. except that it would be necessary for me to get glasses before going to work. When I returned to the employment manager, he told me that I might have an eye examination made by any eye doctor I chose and that I would be put to work as soon as I had obtained proper glasses.

That same afternoon I visited an eye doctor, secured a prescription, and had my glasses made, and returned to the Mills a day later with my newly acquired possession—the glasses.

Is Finally Hired

THE business of being employed then proceeded from where it had left off. I received the approval of the medical department and was instructed in company policies and rules by the employment manager. He also explained the group insurance plan to me and I signed an application for insurance which was to become effective 90 days later, provided I proved to be a satisfactory employee. My personnel record was then made up and I was asked to sign the "protection card." I was issued a locker key, and I made application for a social security number.

At last I was to see the place where I would work. It seemed to me that I had gone through a lot in order to get this job; but I guess a place as large as Real Silk does have to be very careful about the people they hire.

I was shown my locker and was then taken to the seaming department and introduced to the forelady. The forelady in turn introduced me to the girl who was to be my instructor, and my life as a seamer actually began.

At first I was very discouraged. I thought my prospects of becoming a good seamer were small—I couldn't seem to get the hang of it. They were very patient with me, and finally I began to get onto the job. From then on I gradually speeded up and was finally able to make my production and receive the piece-work rate and earn about \$22.00 per week of 40 hours.

Just as I began to think that I was sitting on top of the world, the work became slack and we finally were working only six hours a day. Then the company decided to lay off the "new employees" as we were known, in order to give the regular employees a few more hours. We were given a slip like this one notifying us of this lay-off.

NOTICE OF LAY OFF FOR LACK OF WORK

Name	Date
.....	Department
You will be laid off.....	
which will be necessary because of lack of work. We do not know when we can re-employ you and are therefore giving you one week's notice. If there is a position available we will attempt to transfer you or to bring you back as soon as possible.	
For the purpose of seeking a new position you may take as many days as you desire on your own time. Please arrange with your Department Head for the privilege of being absent.	
Department Head.....	
Personnel Dept.....	

Form 649

When it becomes necessary to lay an employee off for lack of work, a one week's "Notice of Lay Off for Lack of Work" is made out in triplicate by the department head. It must be approved by the personnel department. After the notices have been approved, one copy is given to the employee, one copy is filed with the employee's record in the personnel department, and the third copy is returned to the department head.

The bottom of the world fell out for me then; but fortunately it was only a matter of about six weeks until I was called back to work. I was glad that I hadn't been able to find anything else to do. From that time to this I have worked steadily.

Joins Union

WHEN I returned to work, there was a lot of discussion going on in the department about the "Union." Some of the girls belonged and some of them didn't, and they argued pro and con. I didn't join right then, but late in 1936 I got to thinking that perhaps it might be best for me if I did. A lot of the girls were joining; so I did too. The dues for membership were 35c per week. In 1937

when the Union got the company to sign an agreement, we had to sign cards authorizing the payroll department to deduct these dues from our pay checks.

After I went back to work, I had to have some money to pay off some bills which had accumulated. My friends had borrowed money from the credit union, and two of them agreed to sign my loan as co-maker. I borrowed the money; and I vowed then that after it was paid back, I was going to have the credit union deduct so much each week from my check so that I would have a little bit of money saved the next time I needed it so badly.

I have made many friends at Real Silk; they have always been kind to me and I have been very happy there. I joined the Real Silk Girls Club shortly after I returned to work there and have played on their softball team in the summer and on their basketball team during the winter. We have many outings and loads of good fun. They really are a fine group of girls.

Father Becomes Ill

ABOUT the time things began to go a little smoother at home and we didn't have to pinch our nickels so hard, my father had an attack of acute appendicitis. It came just at a time when he had a job which would have furnished him steady work for quite a while. That meant his being without an income for several weeks; and, of course, we had no money for hospital and doctor bills except the small amount I had managed to save, which was not nearly enough to cover them. Nevertheless, there could be no delay. He was rushed to the hospital and operated on.

The day after his operation, I returned to the Mills and called at the welfare department. I knew about the fund it had with which to help employees in emergencies. They were very sympathetic and agreed to make me a loan to cover both the hospital and doctor bills, a loan that could be paid back in small amounts each week and without interest charges. They informed the hospital and the doctor of this arrangement. This help was certainly a godsend to one as worried and distressed as I. After I had received the bills, I made application for an emergency loan. Within a short time the loan was approved and the bills paid. I know you can understand how much of a relief that was to me.

Keeps Name on Blue Sheet

AFTER my father's recovery, which was only a few weeks later, life flowed smoothly for us again. My work was good, I was considered a good seamer, and I was very well content. Some of the girls I knew in the department had received "discharge warnings" for poor efficiency, poor quality of work, carelessness, poor attendance, etc. This warning is for a 90-day period, and there have been some cases I knew about of girls being discharged during that time because they did not improve.

It makes the girls feel bad when they get these warnings, but it sure does wake some of them up. I guess the company has to be very strict, because they can't afford to have bad work going through. I have always managed, however, to

keep my work up to standard and am always on the "blue sheet." Maybe I should explain to you just what a blue sheet is.

Each week the payroll department makes up two sheets; one is the blue sheet, the other is known as the pink sheet. These are posted in the department for everyone to see. All operators who make 100% or better are listed on the blue sheet, and all those below 100% efficiency are put on the pink sheet. We have standards both in production and quality, and we all strive to be above these standards or, at least, not to fall below.

DISCHARGE WARNING

Name of Employee _____ Date _____
 Department _____
 Your () attendance _____
 () conduct has been below standard of this department.
 () efficiency _____
 Unless you show immediate improvement and continue to maintain this standard you will at any time within the next three months be subject to a definite one week's notice of discharge.
 Dept. Head. _____
 NOTED BY: _____
 Personnel Dept. _____

Form 645

Discharge warnings are given to employees who are below the standard of the department in efficiency, quality, conduct, or attendance. The discharge warning is made out in triplicate by the department head. It must be approved by the personnel department. After the slip has been approved, the employee receives one copy, one is filed with the employee's personnel record, and the third copy is returned to the department head.

Another thing that we have to beware of is the "lay-off for discipline." The girl on the machine next to mine got one of these a few weeks ago. She really did some very careless work, though. She seamed stockings for almost a whole day

LAY OFF FOR DISCIPLINE

This notice shall not be given an employee without first obtaining the approval of the Department Manager and the Personnel Dept.

Name of Employee _____ Date _____
 Department _____
 Laid off from _____ 193 , to _____ 193 ,
 Reason _____
 Dept. Manager _____
 Personnel Dept. _____
 By _____

Form 646

As a disciplinary measure, an employee is sometimes laid off for a period of one or two weeks. Reasons for disciplinary lay-off are poor work, infraction of company rules, etc. The lay-off for discipline slip is made out in triplicate by the department head. It must be approved by the personnel department. After the lay-off has been approved, the employee receives one copy of the notice, one is filed with the employee's personnel record, and the third copy is returned to the department head.

when the machine was out of order and needed repair. She couldn't tell that her machine was not running right unless she looked at the seams when they were finished.

This is one of the rules—that we inspect some of our work and see that the machine is running right. But she hadn't done so and had passed the work on through when it was all bad; and, of course, it came back from the inspector. She got very angry about it and took it up with the union representative. The representative went to the forelady about it and the forelady showed her the work which was sent back on this girl. When the representative saw the work, she agreed with the forelady that it was very careless and said she thought the lay-off was justified.

Why Company Liked

I HAVE found several advantages in working at Real Silk, or, at least, I believe them to be advantages. The medical department is open from eight to five each day, and we are permitted to go there for first-aid treatment or for advice at any time. The only requirement is a pass from the department head. The doctor is there each day for two hours, and the dentist comes once a week, but the nurse is on duty all the time. Whenever we are out ill, the department head always makes us go to the medical department and get a recovery slip from the nurse or the doctor before we are allowed to start work again. The medical department recommends sick leaves for a month or more to the department heads for employees if, for some reason, they are unable to work.

One thing which means much to us girls is that we are able to buy hosiery and lingerie at slightly more than half price, and substandards for still less. This really is a break because we can get such nice things, satin and crepe lingerie, for our money. We couldn't begin to buy the same quality downtown for the money. I can also buy things for my family, even my father's shirts, socks, and underwear, at these reduced prices, and it surely is a big help to the family budget.

Union Protection

IF THERE is anything in the department about the working conditions or the rates which we don't like or which we feel is not right, we can always take it up with our shop committee women; and they, in turn, take it up with our forelady and superintendent. We don't have to just sit and suffer and be afraid of losing our job if we complain about something.

As a means for putting our complaints on record, we use a blank known as "Employees' Formal Complaint." As you will notice from this blank, if we do not get satisfaction from the foreman, the matter is then taken up by the Union Shop Committee with the Collective Bargaining Committee for the Management, and it is discussed in joint meetings. Our agreement provides for arbitration also,

but so far as I know no matter has been submitted to arbitration since our agreement, which was signed last May, a year ago.

AMERICAN FEDERATION OF HOSIERY WORKERS
615 North Noble Street
INDIANAPOLIS, INDIANA
Branch No. 35

COMPANION

EMPLOYEES' FORMAL COMPLAINT

Department..... Person.....
Nature of Complaint.....

.....
.....
.....

(Signed).....

Shop Committeeman.....

(Date Registered with Foreman or
Superintendent).....

(Signature of Foreman or Superintendent).....

(Date Submitted to Bargaining Committee
for Management).....

(Signature of Shop Chairman).....

(Date of Disposition).....

Disposition:

.....
.....
.....

Bargaining Committee for the
Union:.....

Bargaining Committee for the
Management:.....

(Signed).....

(Signed).....

Works Manager.....

(Signed).....

(Signed).....

(Director of Personnel).....

(Date Submitted to Executive Officers of
the Union and the Corporation).....

Called to Personnel Office

ABOUT two weeks ago, I was informed by the department head one day that the personnel director, Mr. Baum, wished to see me in his office. I immediately asked the reason, but my department head was noncommittal. You see, you usually have committed some very serious offense if you are called into his office. I started for his office, and on the way, I racked my brain for a reason for this summons. I had to give up, thinking I would soon know anyway, because every step brought me nearer to what I felt might be my doom.

Upon reaching the main office I explained my call to the reception clerk, who called Mr. Baum's office, and I was ushered in. I believe he sensed my agitation,

because he immediately tried to put me at my ease. I will have to confess to you that I really had the impression that he was a man to be afraid of, and I now must apologize for that impression and beg his pardon.

After a few pleasantries, he relieved my mind by telling me that he wished to have me speak to the Personnel Conference on employment at Real Silk, as I had been suggested to him. I was thrilled that I had thus been honored, but I felt I couldn't possibly do such a thing. After much persuasion on his part and his promise to stand by and back me up when I faltered, I finally consented.

Incidentally, I am now on a vacation. The entire mill will close from June 27 to July 5, and everyone will be given a vacation at that time. However, I secured permission to take a month and I am going West with some friends. You can imagine how much I anticipate this trip as I have never been out of the State of Indiana before. Many of the girls in our department take vacations, some of them even as much as two months, but I have never before been able to. Before the "recession" we got vacations with pay; but, according to the management, that seems to be out of the question now. So this one is on me.

I have enjoyed this opportunity to tell you about myself and Real Silk because I am proud of Real Silk and proud to be a Real Silker. I thank you.

Miss McCarty told her story at a meeting of the Industrial Personnel Institute of Purdue University. She was introduced by the late Mr. William Baum, formerly Director of Personnel, Real Silk Hosiery Mills, Inc., Indianapolis, Ind., as follows:

"I have been requested to present to you as a paper 'A Description of Personnel and Industrial Relations Work at the Real Silk Hosiery Mills.' In thinking about this matter I came to the realization that it would be difficult to give a description of this work in the form of a paper. Furthermore, I do not think I would be a good enough speaker to present the subject properly to this group of experts.

I, therefore, decided to ask an employee of our organization to tell her own experiences, a procedure which will be more interesting to you and much more to the point.

It gives me great pleasure to introduce Miss Patricia McCarty, an employee of Real Silk, and a member of the American Federation of Hosiery Workers, Local No. 35."

Picking the Right Man for an Important Executive Position is no Easy Matter, as Personality Traits, such as Initiative, Responsibility, Tact, etc., Have to be Measured. Industry, as well as Government is Vitrally Interested in this Problem.

Civil Service Oral Interviews

BY MILTON MANDELL

New York City

IN THEIR bulletin "An Approach to More Objective Oral Tests" (digested in the October 1939 issue of the Personnel Journal) Ordway and O'Brien stress two points: 1. The inclusion of objective items in an oral rating scale rather than vague generalities, which increase its subjectivity; 2. The use of the interview as an opportunity for a candidate to present evidence of *past* performance, which will show possession of desirable personality traits. This information is recorded and later verified. While the system proposed has some significant disadvantages, the theory behind the Ordway-O'Brien proposal is highly important.

Criticisms Accepted, Solutions not Accepted

ORAL interviews as at present administered in civil service test work, consist of a brief appearance by the candidate in which he is observed in his reactions to questions, and is rated on such items as speech, appearance, judgment, and tact. Ordway and O'Brien attack the reliance of grading based on behavior observed only at an interview; they want the evidence from the candidate's entire previous experience. Furthermore, they contend that a rating based on evidence of past performance is easier to defend in court, or wherever else an appeal from an oral interview grade is heard. One can, however, agree with their criticisms and disagree with their proposed solution. In the main, the disadvantages of their plan are:

1. The length of the interview required if sufficient evidence is to be obtained is exorbitant in terms of staff time, pay of experts, cost of transcription, and similar expenses. It would take at least an hour a candidate to get the desired evidence from candidates for junior positions;

... (1/1000) for senior positions, it would take about a day per candidate if the oral rating board is really interested in getting all of the evidence instead of a sample.

2. Candidates complain about the Ordway-O'Brien proposal because they do not remember the names, dates, and places which the oral board wants included in the evidence so that verification can be attempted. The candidates remember the general situations surrounding past events but cannot recall the details.
3. There is no evidence to indicate that the legal analysis of factual evidence furnishes a more valid examination result than the present psychological analysis of behavioristic evidence. (This point was suggested by Joseph W. Hawthorne, Director of Examinations, Los Angeles City Civil Service Commission, in a discussion of the Ordway-O'Brien proposal.)
4. It is doubtful whether records are kept by either private or public agencies in sufficient detail so that the personnel department could verify, for example, an act demonstrating initiative or judgment that a candidate offered in an oral interview. If in most instances the statements cannot be verified with any substantial degree of accuracy, except in regard to such gross factors as dates of employment, salary, or duties which are at present verified, then the evidence of the Ordway-O'Brien interview becomes equivalent to the candidate's expression in more traditional type interviews of what he would do in a certain situation.

What is Objectivity?

THE following material refers to the administration of oral interviews of the more usual kind as compared to the Ordway-O'Brien technique. The need for objectivity has been stressed by Ordway and O'Brien and other writers in the field. Objectivity as related to the oral interview would seem to mean standards of judgment applied by several raters, which lead to relatively close agreement among them and these standards, when applied by other raters to the same candidates, would lead to grades relatively similar to those given by the first group of raters.

Using the split-half method of testing reliability rather than the retest method would make it administratively possible to measure the presence or lack of objectivity in oral interviews. This objectivity is an obvious necessity, besides the *sanction of court* action, in order to increase the validity of the examination process and protect the personnel agency from severe public criticism. The following procedure meets the requirements related to objectivity.

Criteria for Oral Rating Forms

FIVE criteria seem to be of great importance in the preparation of an oral rating form:

The items on the form should be based on a job analysis, which indicates the personality traits necessary in the performance of the duties of the position. This criterion is more usually followed than those which follow.

Not only must the items be relevant, but they must also be measurable. It has been stated that "... in order to be accurately judged (personality) traits should be overt, expressive and well-defined." (Gordon W. Allport, *Personality A Psychological Interpretation* (1937), p. 508.) Job analysis may indicate that initiative, for example, is a desirable personality trait for many positions. But it usually is not possible to measure initiative in an oral interview. The personnel technician, when the time comes to measure personality traits of this kind, will have to depend upon the work-test, the probationary period, for evaluation of a candidate on these traits.

The New York City Civil Service Commission violated this criterion in an examination for Police Surgeon when it attempted to measure executive ability in oral interviews. While executive ability was a relevant trait in regard to the duties of this position, yet analysis might have indicated, as the court pointed out in the well-known case of *Fink vs. Finegan* (270 N. Y. 356), that it was not possible to measure it objectively in an oral interview.

Length of Interview

Not only must the item be relevant and measurable, it must also be measurable in the time allotted to the particular oral interview. E.g. judgment. If ten or fifteen minutes is allotted for an interview, it is doubtful whether ratings on judgment will be reliable. It would require about three times this length of time to measure this item objectively.

This criteria should be a caution against using the same rating form for different examinations without taking into consideration the length of interview time available in each instance.

Appearance and quality of speech can be rated in an interview of a few minutes; ability to express oneself would take a slightly longer time to measure, but complex items like judgment probably should not be included on the oral rating form unless about a half hour is available for each interview.

As many items as are relevant and measurable should be included on the rating sheet. This principle is similar to that involved in increasing the reliability of a written test by increasing the number of test items. It is desirable to increase the number of items even though there may be substantial overlapping in what each item measures. For example, in the form used in the Pennsylvania social security recruitment program, two of the items used are emotional stability and self-confidence. An examination of the definition of these items as given on the rating form an experimental evidence indicates that the rating on these two items will probably be substantially alike.

The principle involved in this point is also related to the assumption of increase of reliability by increasing the number of raters in an oral interview. While an equally greater reliability will not be obtained by doubling the number of items, as is

obtained by doubling the number of oral raters, or written test items, yet some increase in reliability will be obtained.

As a limitation on the above suggestion, it is doubtful whether the number of items on the rating sheet should be greater than ten. In the first place, a long rating form will result in an accentuation of the halo effect, because the raters will not attempt to analyze the candidate's behavior against each of fifteen to twenty-five different items. In the second place, expert examiners, who are frequently used for oral interviews, would usually resent having to fill out a lengthy form for each candidate.

Definition of Items

DEFINITION of items in terms of behavior or synonyms is a desirable and necessary part of the rating scale. The definition should include both negative and positive elements of the item, and should attempt to be as all-inclusive as possible. It might suggest what kind of behavior would be considered about average for the particular position, as differentiated from average behavior on the same item for a higher or lower grade position. Presentation of the definitions on the rating form and a discussion of them before the interviewing starts should help in increasing the degree of agreement among the members of the rating board.

Selection and Instruction of Raters

PROBABLY the most important step in achieving reliability and validity for oral interviews is the careful selection of the rating board. Estes (quoted by Allport) states that the most important factor affecting the excellence of judgment (using clinical records as the validity criterion) was the inherent ability or shrewdness of the raters. Whether oral rating boards should be composed entirely of members of the staff of the personnel agency, or should contain only outside experts, or be a combination of the two groups usually depends on the position for which an examination is given.

For clerical positions, such as stenographer or reception clerk, the staff of the personnel agency is probably as competent to rate personality as any outside group. But for important administrative or professional positions, a group of experts representing various shades of thought and occupations, with a personnel technician as chairman, would be desirable. This is so both from the point of view of public and professional confidence in the oral rating procedure, and value of the results obtained.

In a recent examination for the position of City Clerk in Los Angeles, the members of the board included the Director of Examinations of the agency, the comptroller of a near-by city, the city attorney of an adjacent city, a university professor who was an authority on election administration, the executive secretary of a business men's group, the president of the local junior chamber of commerce,

and the president of the state federation of labor. It is remarkable with what speed a group of such outside experts, in many cases meeting each other for the first time, and in many cases serving for the first time on an oral rating board, can learn the procedures of the interview, ask short, significant questions, and display, as indicated by ratings arrived at without any prior discussion, close agreement in their judgment of the various candidates.

Los Angeles Procedure

THE procedure that the writer followed (at the Los Angeles Civil Service Commission) in the use of an outside board was to get the experts to agree to serve, and indicate to them the title of the examination, and the approximate time available for each interview. About two days before the interview a statement of the duties of the position for which the interview was to be given, a copy of the rating sheet to be used, and a short statement on oral interviewing procedures was sent to each member of the rating board. The board assembled about half an hour before the interview started so that procedures might be discussed and questions of raters answered. The following items were usually included in the brief introduction by the staff member in charge:

All candidates who will appear before the oral board have passed a written test; therefore, the oral grade should not be influenced by any knowledge or lack of knowledge that candidates display. This caution is also used to indicate that questions should not be asked which will give a candidate an opportunity to answer by yes or no; rather, the questions should involve the use of judgment and, more important, since judgment can in many instances be tested in the written test, the rating should reflect a candidate's manner in presenting his opinions and his approach to the subject.

The raters are warned against the halo effect, and the suggestion is made that they rate each item separately.

Chance to Discuss Ratings

THE raters are told that after the first few candidates are interviewed, there will be an intermission during which time ratings can be discussed, and, where there are variations, the raters can state why they gave the particular rating they did. This discussion helps achieve uniform standards of rating by the various raters. However, no rater is asked to change his ratings because other raters have given different grades. The purpose of the discussion is to afford an opportunity for interchange of opinions based on problems which have arisen during the first few interviews. Frequently it will be found that one rater is rating higher or lower than the other raters, but so long as each rater maintains his own standards, the value of the pooled grades of all the raters is unimpaired.

The rating board is asked to make each interview approximately equal in length,

because candidates who are given only a short interview feel that they have been discriminated against, and candidates who have been given an extended interview feel aggrieved if they later learn that they have not been given a high rating.

The raters are told that they may discuss their ratings after each candidate leaves, or may enter their ratings without any discussion. There are advantages to both procedures and it is desirable to allow the raters to decide which method they wish to follow. In practice, for most candidates, raters usually enter their ratings individually. For a few candidates, because of some doubt, perhaps, in the raters' minds, they discuss the interview before entering their grades.

Avoid Details of Past Experience

THE raters are asked to avoid, as much as possible, questions on the details of a candidate's experience (when the interview is only for the purpose of measuring personality traits). Otherwise, candidates with much experience feel that a mistake has been made if they get a low grade. To put a candidate at his ease, it has been customary at the start of an interview to ask him about the duties of his present position. Using the answer to this question as a basis, the candidate is asked his opinion about situations in which more than one course of action is appropriate, but in which the reasons and manner of expression are important. Before leaving the interview, the candidate is always asked if he wishes to add anything to that which he has previously stated. This precaution is necessary to safeguard the agency against later criticism that the oral board has been abrupt, and would not listen to the candidate.

The raters are told that there is no particular order in which questions have to be asked. Any member of the rating board can ask questions whenever he wishes, and ask as many questions as he wishes.

The raters are warned against putting the same questions testing judgment to all candidates, since the later candidates will have a fluent and well-reasoned answer prepared, which will give them an advantage over candidates who were first interviewed.

The raters are told that they need not check all the items on the rating form if they are uncertain about a rating on any particular item, or if the interview has not given them an opportunity to judge the candidate on that item. Omissions are taken into account in calculating the final grade.

Number of Points on the Scale

THE criteria used in deciding the number of points in a rating scale are the number of raters, the time available for each interview, and the percent of candidates who will probably be appointed. The goal in public personnel testing is the selection of the best, rather than the qualified.

Number of Raters

AN INCREASE in the number of raters on the rating board makes it possible to increase the number of points on the rating scale without reducing the reliability. By this is meant that if a satisfactory reliability can be obtained on a five-point scale by the use of a four man rating board, an increase to a seven-point scale can be justified if the rating board is increased to six or seven members. These numbers are not meant to be exact, but suggestive. Empirical evidence would be needed to show how many points can be added by an addition of one or more raters without loss of reliability.

Time Available for Each Interview

ASSUMING everything else remaining constant, if the length of interview can be increased, the number of points on the rating scale can be increased. The rater can obviously discriminate more finely the longer the period of observation. Here again, the number of points that can be added for each additional five or ten minutes of interview time is dependant on experimentation. Generally speaking, not more than a five-point scale should be used in any interview of less than fifteen minutes, no matter how many raters are used.

Per Cent of Candidates to Be Appointed

THE higher the percentage of candidates, who are interviewed, who will be appointed, the less necessity there is for fine discrimination on the oral rating form. For example, if there are enough positions available so that every one who passes the interview can be appointed, then a two-point scale, qualified, and non-qualified, can be used. If only a small percentage of the candidates who are interviewed will be appointed, and if personality is important, it is necessary to increase the distribution of scores by increasing the number of points on the rating scale.

In probably no instance should a rating scale of more than seven points be used. And a seven-point rating scale should probably require a five-man rating board with at least twenty minutes available for each interview.

It is suggested that numbers be used to identify each point on the rating scale, rather than descriptive phrases as is commonly used, or percentages. The purpose of this is to eliminate the connotation attached to words and phrases acquired outside the rating room. The sample rating form shown illustrates the appearance of such a scale. The raters are told that a check over No. seven will indicate that the candidate is among the most outstanding on that particular item; that a check over No. three indicates that the candidate just meets the minimum requirements of the position on that item; and that a check over No. one indicates the candidate is hopeless on that item.

With these landmarks as a guide, the raters are told that the intermediate numbers represent intermediate values on the particular item. In each case, the

ratings are told that the rating of any other rating depends on the duties of the position. Obviously if a candidate is being examined for a legal position, which requires frequent court appearances, he will get a different grade on fluency of speech than he would get if he was being examined for the position of reception clerk. The same man might get a "4" rating, on this item, for the first position and a "7" rating for the second position.

Descriptive Phrases

The descriptive phrases used on the rating form for each trait are important. These should not be too long, for if they are the raters have to take much time in reading them, and different shades of meaning and ambiguities may creep in. In the

SAMPLE FORM FOR ORAL RATING

City Clerk

1. **APPEARANCE, MANNER AND BEARING**
Does he appear to have energy and good health? Is he excessively nervous and uncertain of himself? Would he attract the confidence of the public? Would he be tactful and diplomatic in handling difficult situations?
1 2 3 4 5 6 7

2. **MANNER OF EXPRESSION**
Is his voice pleasant, clear and well-modulated? Is his speech too fast? Does he talk too long? Does he use too many words, or talking too long?
1 2 3 4 5 6 7

3. **FACILITY AND EFFECTIVENESS OF EXPRESSION**
Does the candidate express himself well and clearly? In presenting ideas, does he speak logically and convincingly? Is his English good? Is he verbose? Is he withdrawing and hesitant? In his discussion, does he go to the heart of problems and discriminate clearly between the important and the unimportant?
1 2 3 4 5 6 7

4. **ALERTNESS**
Does he grasp the meaning of questions readily? Does he understand new ideas quickly, even when they are complex and difficult? Or, is he slow in comprehending? Is he confused by details? Does he lose sight of the main points? Is his thinking clear and logical?
1 2 3 4 5 6 7

5. **JUDGMENT**
Does the candidate impress you as one whose judgment would be dependable on important questions? Does he weigh the various sides of problems carefully before arriving at a decision? Or would he be prone to make snap judgments, based only upon superficial knowledge? Is he biased, dogmatic, or prejudiced, or does he approach questions with an open mind?
1 2 3 4 5 6 7

6. **INITIATIVE AND INTEREST IN WORK**
Does he have a genuine interest in the problems of city government? Has his reading in this field been wide? Has he made any research studies or written any works in the field of government apart from those prescribed in his regular duties? Professional consciousness?
1 2 3 4 5 6 7

7. **ORIGINALITY AND IMAGINATION**
If the candidate were faced with an administrative situation with which he was not familiar, would he bring original ideas to bear upon it or would he be dependent upon what he has experienced or has been taught? Is he interested in new ideas and does he try to apply them in his own thinking? Or, might he resist thoughts that do not fit in with his own thinking pattern?
1 2 3 4 5 6 7

8. **SUMMARY EVALUATION**
Taking into consideration the extremely responsible duties of this position, and considering all the facts brought forth in this interview, what is your total estimate of this candidate?
1 2 3 4 5 6 7

WEIGHTS Items 1-7 have a weight of 1
Item 8 has a weight of 3

EXAMINER'S INITIALS

case of the excellent rating form suggested by Bingham which was used in Pennsylvania, the five-point rating scale for the first item "Voice and Speech" had the following descriptive phrases:

Irritating or indistinct
 Understandable but rather unpleasant
 Neither conspicuously pleasant nor unpleasant
 Definitely pleasant and distinct
 Exceptionally clear and pleasing

Are these descriptive phrases too long? Could not equal reliability have been obtained by the statement:

Consider whether the candidate's speech is:
 Distinct
 Pleasant, or
 Irritating.

Summary Evaluation

THERE are a number of advantages in permitting the raters to furnish a summary evaluation of each candidate. At the worst, or perhaps best, the summary evaluation is a duplication of the summation of ratings on the items. In some cases the items on the rating scale are not all-inclusive, and the raters observe behavior which there would be no opportunity to rate unless a summary evaluation is included. Using a summary evaluation also provides a guide in deciding whether to pass or fail a candidate. The summation of the ratings on each item may be less than passing, but if the raters nevertheless feel that the candidate does meet the personality requirements of the position, they can indicate this on the summary evaluation.

Number of Rating Boards

WHEN a number of rating boards is used for the interviewing for the same position, the training of the oral raters becomes more complex, in order to overcome differences in rating standards among the various raters. In such cases, where more than one rating board is used, in addition to the training methods described above, all the raters meet together and are given an opportunity to rate persons who are not candidates. These ratings are then discussed and defended. Then, still meeting together, several candidates are rated and these ratings are discussed by the entire group.

Then the raters are broken up into teams and start rating separately. After about a third of the candidates have been rated, all of the raters are brought together again, and together rate a few candidates. Then these ratings are discussed, and the raters then separate and finish the interviews. It might also be helpful from the point of view of equating the teams to switch raters each hour or so from one rating team to another.

It has been suggested that the ratings of each team be changed to standard scores to make up for differences in rating standards. This method would have been statistically defensible because each team rated enough candidates (about seventy-five) and the assignment of candidates to each team was on a purely random basis. But this suggestion was not followed because of the great difficulty involved in explaining to candidates how their scores were computed. The use of such methods always leaves a public personnel agency open to charges of manipulation of grades. (The Los Angeles City Commission was charged with manipulation when the scores on the written test for Police Chief were treated to eliminate items which had no internal validity.)

Changing Point Grades to Percentage

THE method used in changing point grades to percentages will be explained in the case of a seven-point scale with six raters and ten items, with the last item a summary evaluation, with a weight of three, and other items with a weight of one. The method is the same no matter how many points are on the scale, or how many items or raters are used. In the case of Los Angeles, the minimum passing grade is 75%. The method is the same no matter what the minimum passing grade is. If the summary evaluation were not weighted three, some of the advantages of using it would be lost. In most cases, weighting the summary evaluation does not affect the final ranking.

Arithmetic Calculations

SINCE the scale is a seven-point scale, the maximum number of points that any candidate can receive from one rater on a ten-item scale is $(7 \times 9) + (7 \times 3)$ (since the summary evaluation is weighted three and the other nine items are weighted one each). Multiplying and adding gives a result of 84. Since there are six raters, the highest number of points any candidate can receive is 6×84 or 504. 504 points is therefore equal to 100%. The raters had been told that a rating of three meant that the candidate met the minimum requirements. To obtain the point equivalent of the minimum passing mark, 75%, the following figures are used: $(3 \times 9) + (3 \times 3)$ (nine items have a weight of one and the tenth item has a weight of three).

The result of the above calculations is 36, which, when multiplied by six, the number of raters, gives a result of 216 as the point equivalent of 75%. With the point equivalents of 75% and 100% established, it is simple to prepare a table of point equivalents for all point scores. 25%, the difference between 75 and 100%, is equal to the difference between 504 points and 216 points, which is 288. If 288 points are equal to 25%, then one point is equal to .0868%. If a candidate received, for example, a point score of 255, his percentage score would be computed as follows: $255 - 216$ (the 75% point score) is 39. $39 \times .0868$ (the percentage equivalent of one point) is equal to 3.39. The candidate's score on the oral is therefore 78.39%

Book Reviews

Book Review Editor, MR. EVERETT VAN EVERY

University of California, Berkeley, Cal.

SALARY DETERMINATION

By John W. Riegel. Ann Arbor, Mich.; University of Michigan Press, 1940, 270 pp.:
\$3.00 paper, \$3.50 cloth

Reviewed by Mack Stoker

The twofold value of this excellent study lies in its timeliness and its thoroughness. With the companion volume, *Wage Determination*, which preceded it by three years it should be in reaching distance of every personnel man in America. The thoroughness of the study is attested by the fact that any personnel manager could direct a salary survey by merely following directions. True, one of the directions is to call in a specialist, but it outlines his duties well enough to enable the personnel director to hire a good one.

In method the book is a study of salary survey practices among progressive companies, but in the factual reporting of accepted practice the author provides ample basis for broad policies. Even if one were not interested in the definite technique of salary determination, he would get from a reading of the book a sound philosophy of industrial relations. This is probably due to the fact that the practices reported are based on just plain common sense, or should we say *uncommon* sense.

The reader who wants definite procedures will find them—*who* should do *what* and *how*, with the *why* plainly implied.

Stripped to its barest essentials salary determination consists of

1. Listing of the duties and responsibilities of key jobs.
2. Valuating the importance of these jobs.
3. Valuating importance of unusual jobs by comparison to most similar key jobs (with directions provided).
4. Setting up standard salaries.
5. Setting up salary ranges (up to this point the object of study the *job* not the individual who holds it).
6. Locating the individual within the salary range by means of performance rating (rating for salary is not the same thing as rating for promotion).

There are two chapters on the special problems involved in rating managerial and technical positions and a fine concluding chapter on "Administrative Arrangements."

When the methods explained by Mr. Riegel are as undeniably common practice as they are now common sense, a lot of troublesome problems will have been pushed from the field of industrial relations into the field of history or paleontology where they belong.

TRENDS IN STUDENT PERSONNEL WORK

By Sarah M. Sturtevant, Ruth Strang and Margaret McKim. New York: Bureau of Publications, Teachers College, 1940. 110 pp.: \$1.85

Reviewed by Book Review Editor

This work is a descriptive study and summary of opinions regarding positions of dean of women and dean of girls in secondary schools and higher institutions of learning. The report would appear to be written for those people planning to become deans rather than fully descriptive of the personnel aspects of the deans' offices. In this respect the title is misleading, although the content plainly qualifies its limitations to trends in the growth and development of deans of women's offices.

Any intelligent approach to student personnel work today requires a study of both the personnel workers and the institutions. The authors have done more than investigate and report functions: their data have been gathered over a ten-year period with many discoveries in differences, variations and duplications in student personnel work. The deans' offices are found to be well established and highly developed, especially in the accredited institutions.

Academic preparation, teaching load, salary, organization and staff, student personnel functions are well treated in relation to significant trends in the professional status of the dean of women. Interests in vocational guidance and placement appears to be increasing, especially in the liberal arts colleges, and these services are tending to move out of the offices of the dean of women.

The authors frankly state there is a need for clarification of the meaning of student personnel work and the establishment of certain goals and purposes. It would seem to follow that "a successful program is not achieved by superimposing an ideal plan upon an imperfect educational organization. Success will be attained by recognizing limitations beginning with the faculty and the students as they are and progressing no faster than their understanding and enthusiasm permits."

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